

KIC 006706000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006706000-01	OBS	No	0.964188	131.698459	86.9	4.941	13.5	13.3	1.17	6499	1.39	5328.53
006706000-02	OBS	No	60.954992	139.780863	386.5	2.533	7.4	5.7	1.17	6499	2.61	21.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006706000-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
006706000-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

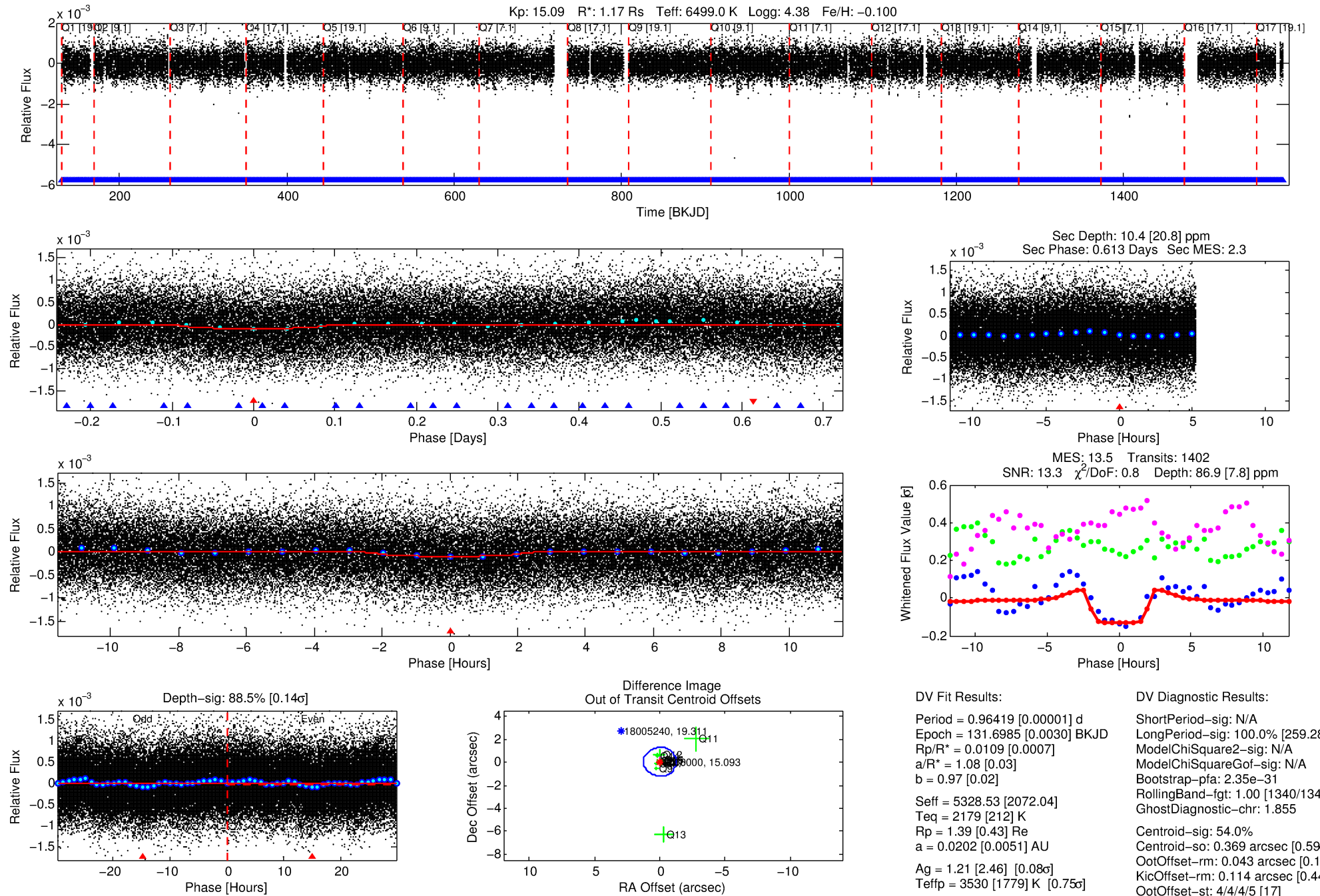
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006706000-01

No Significant Match Found

DV One-Page Summary

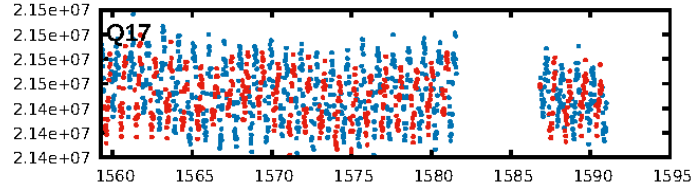
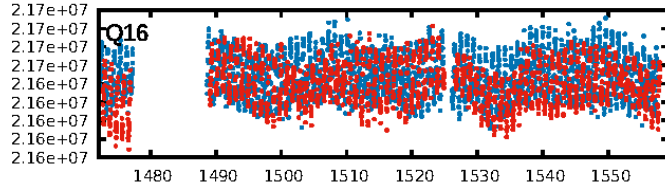
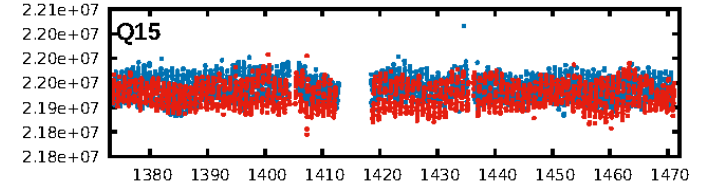
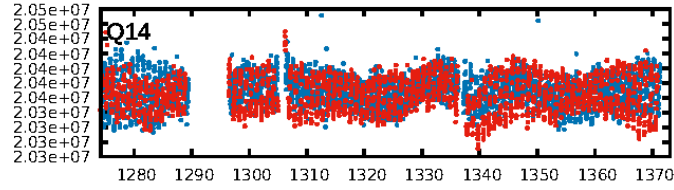
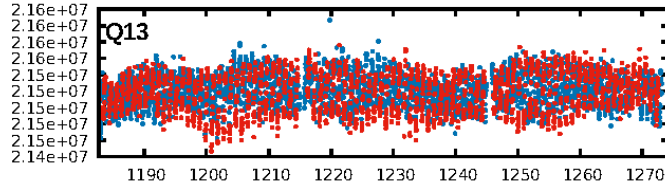
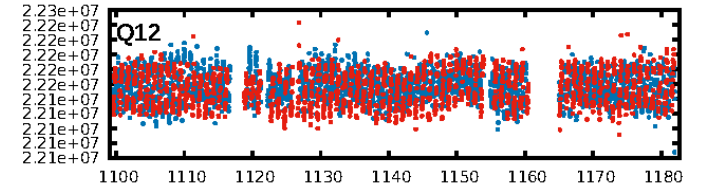
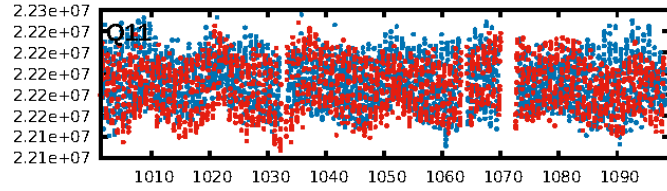
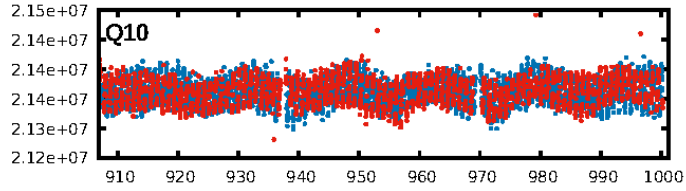
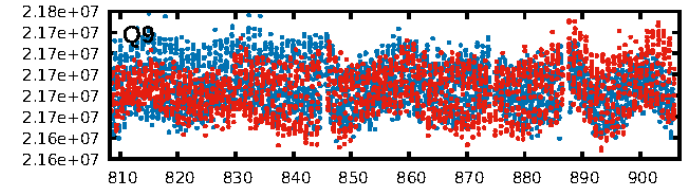
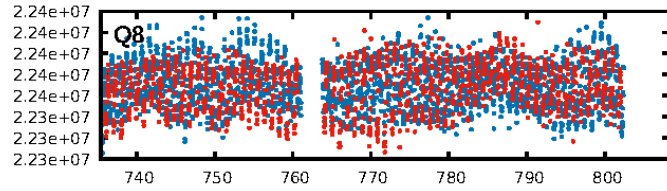
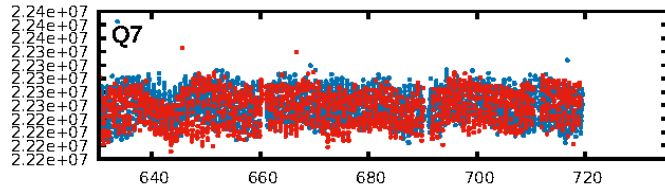
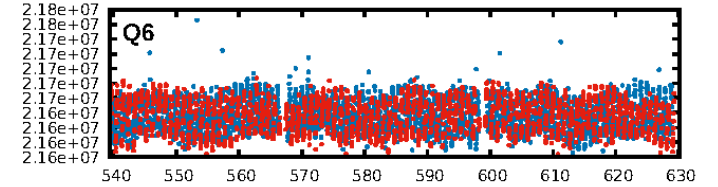
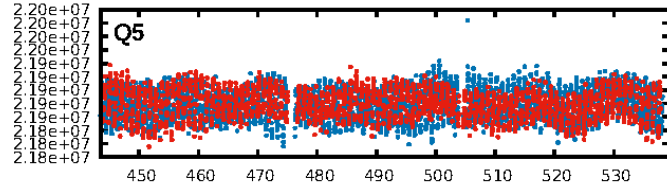
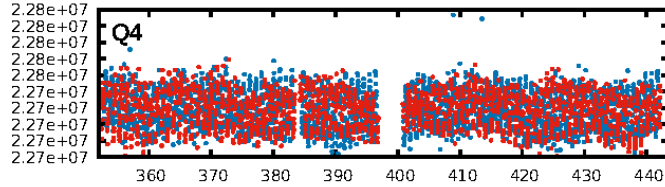
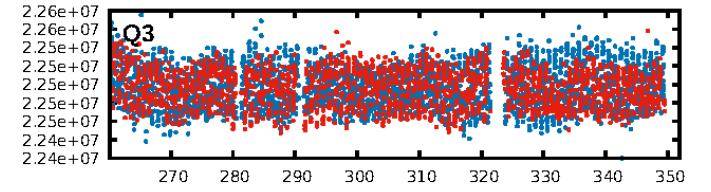
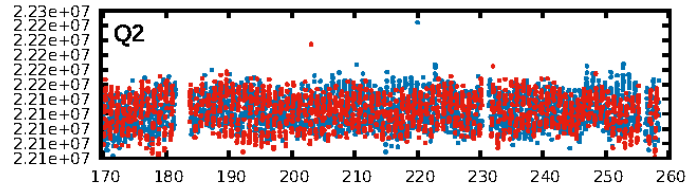
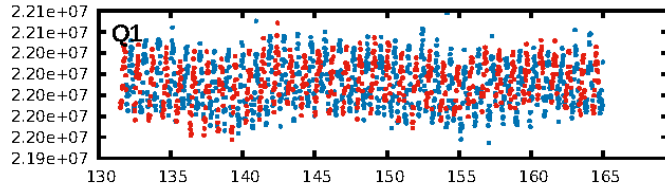
KIC: 6706000 Candidate: 1 of 2 Period: 0.964 d



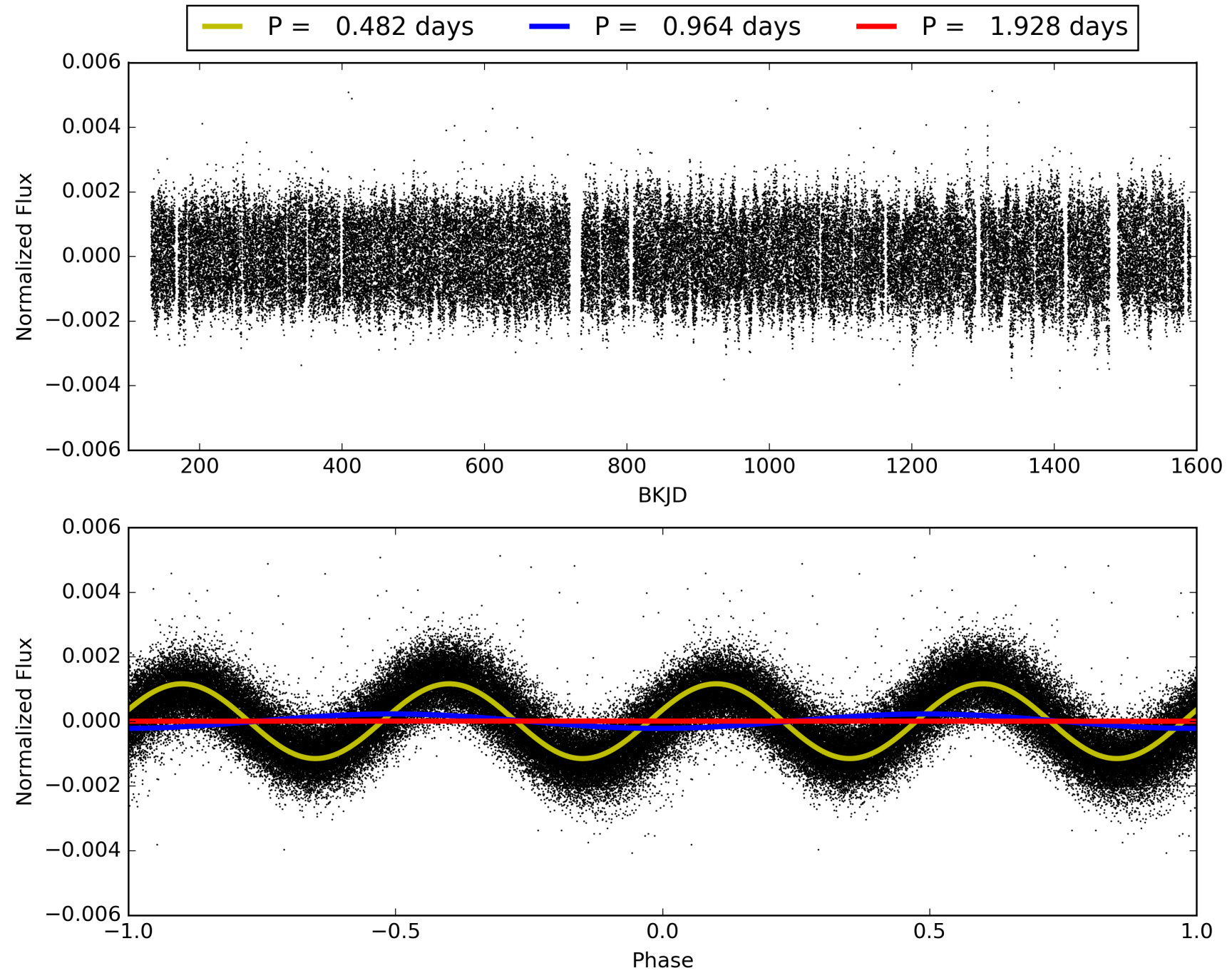
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006706000-01, PDC Light Curves

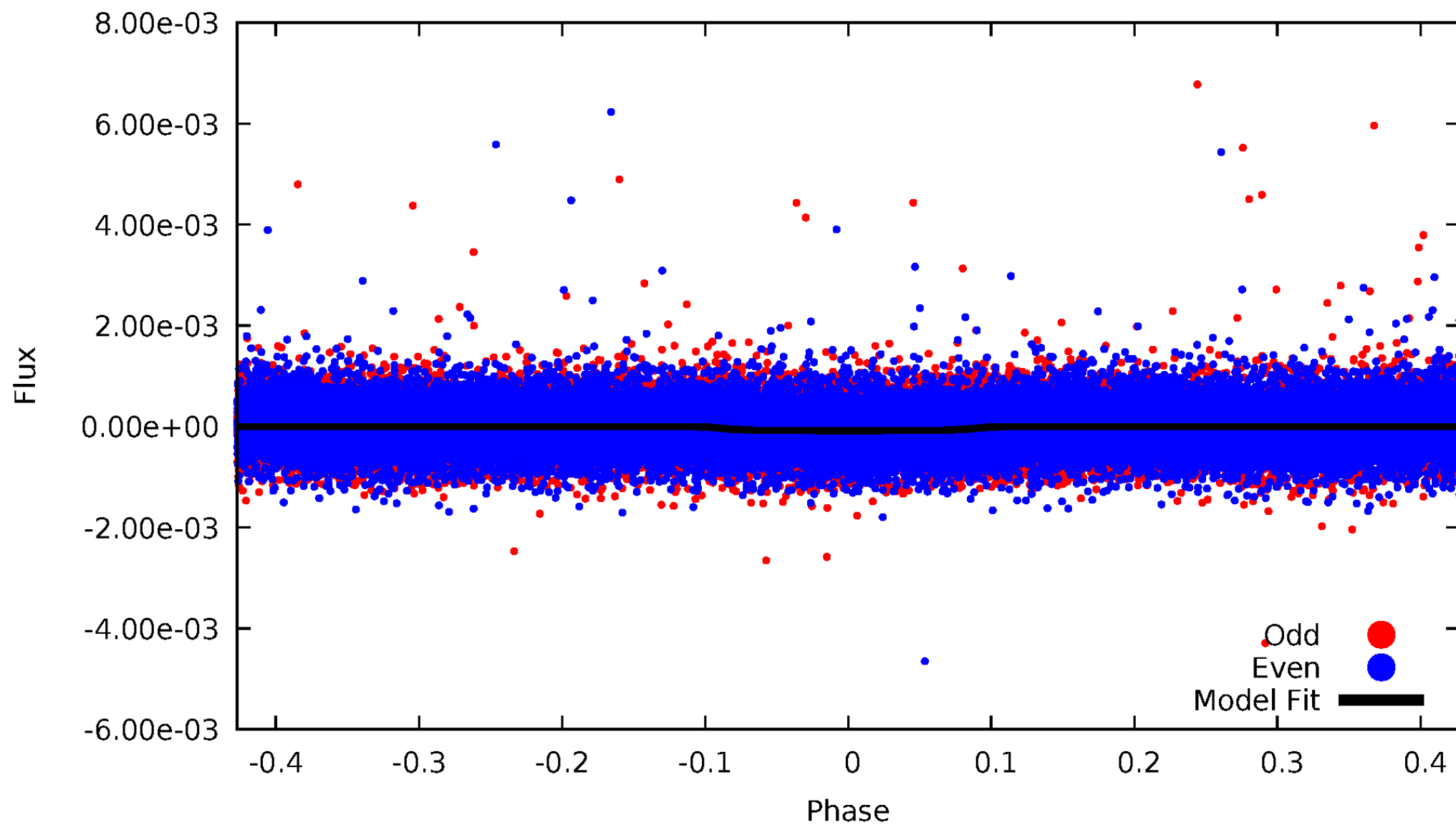


TCE 006706000-01



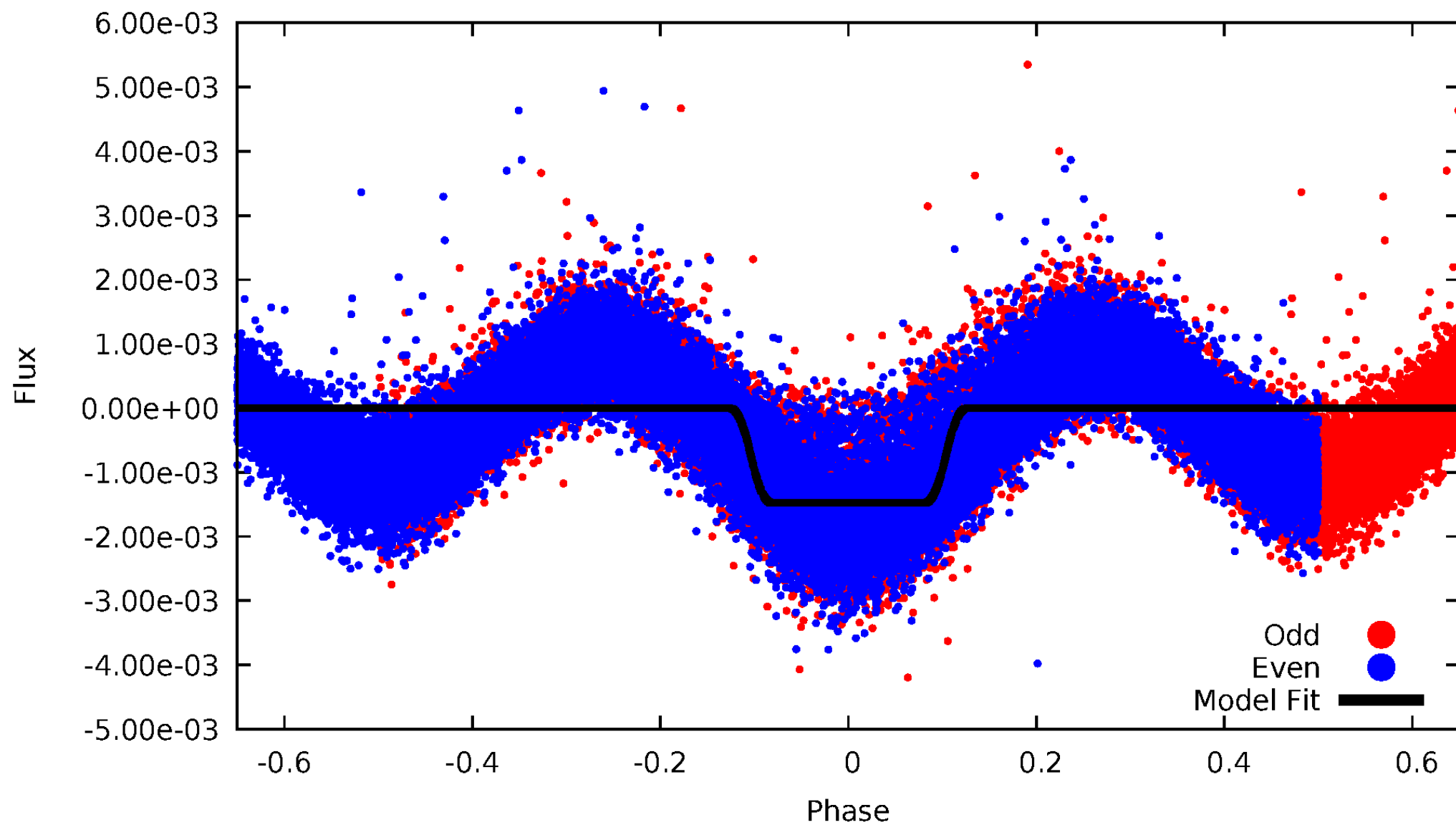
DV Odd/Even

TCE 006706000-01



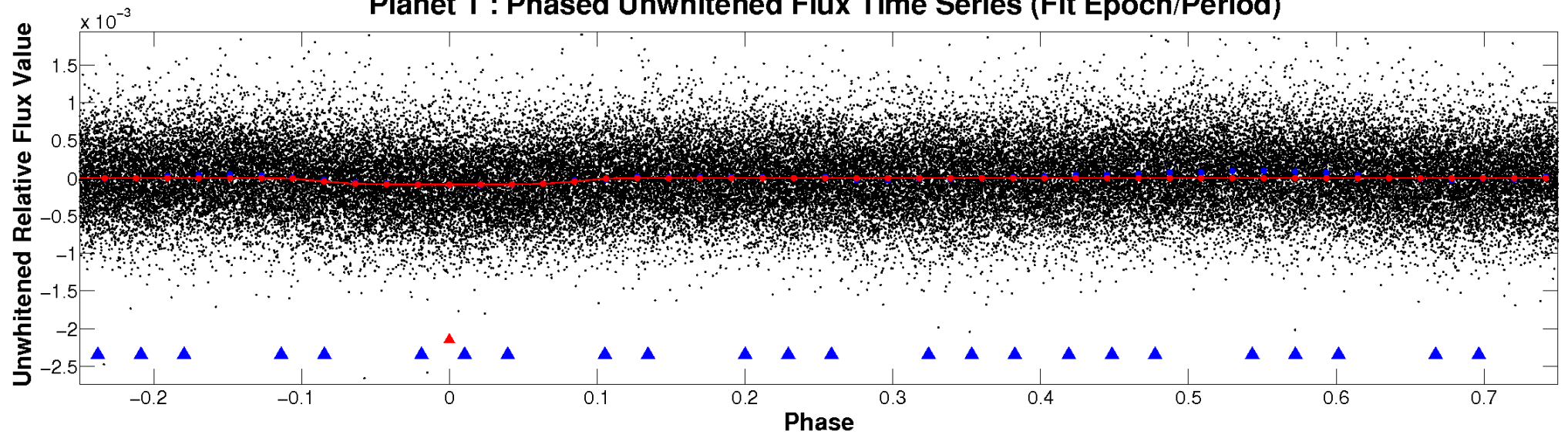
ALT Odd/Even

TCE 006706000-01

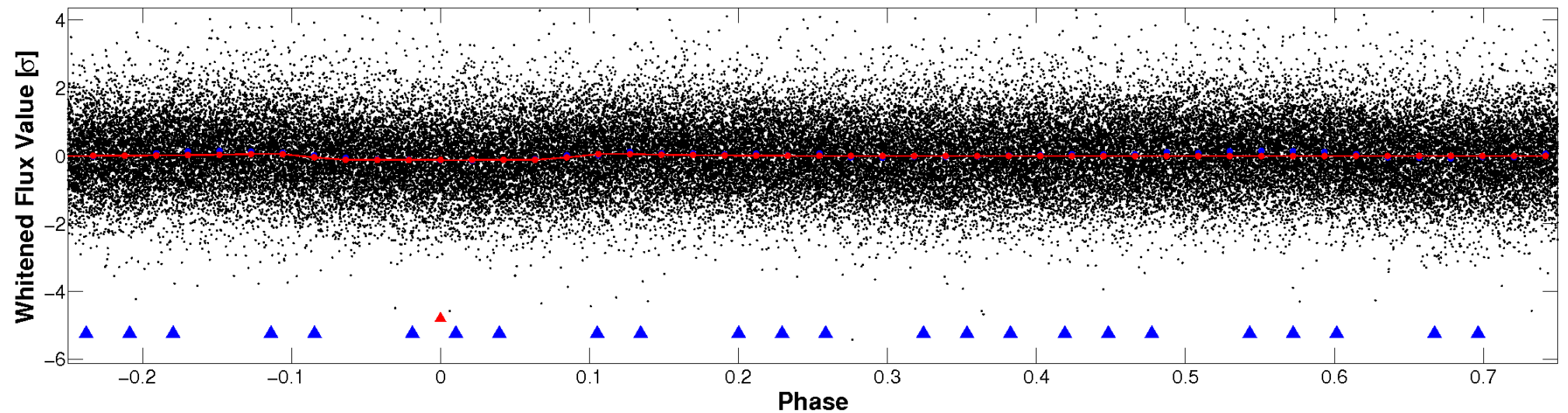


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

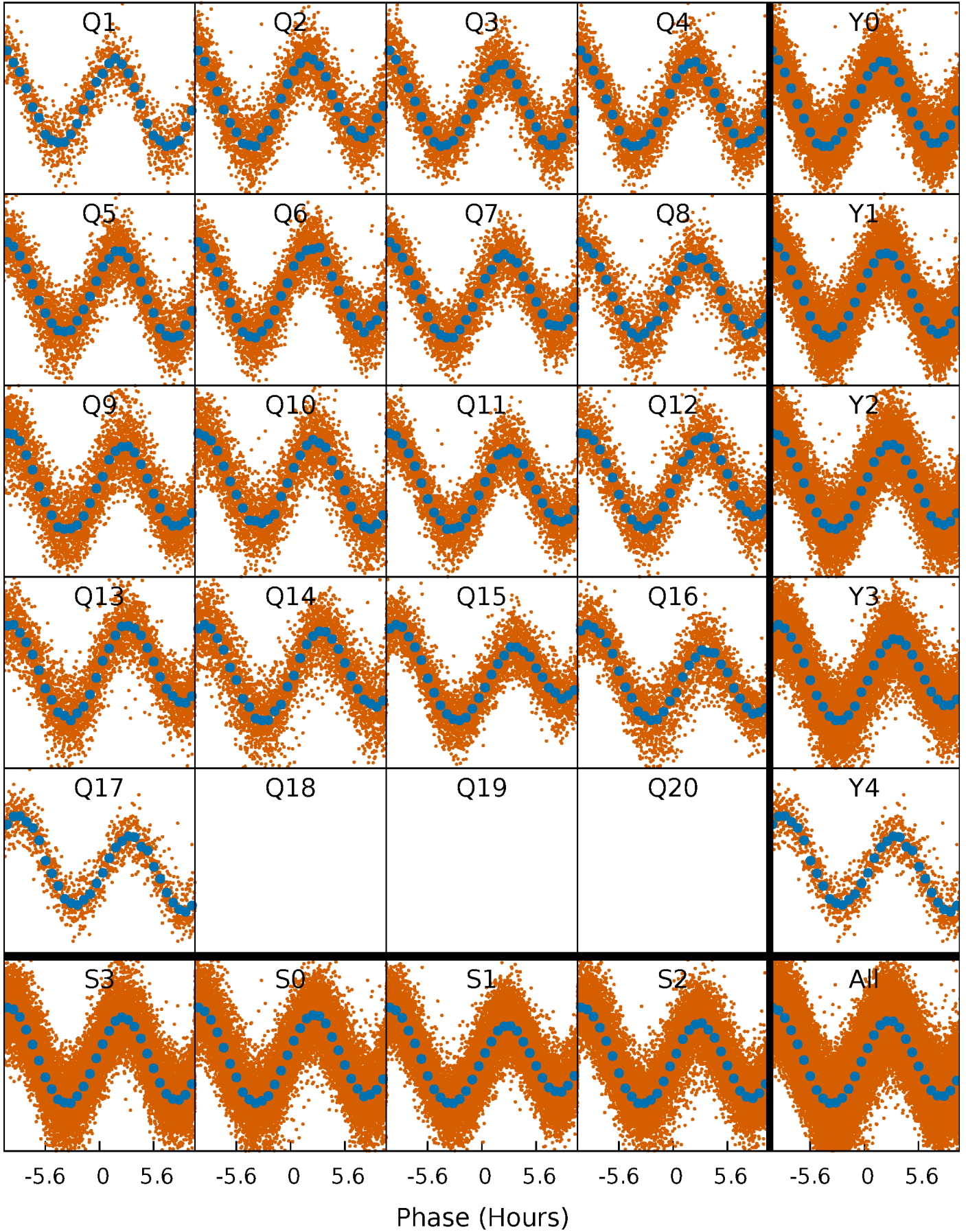


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



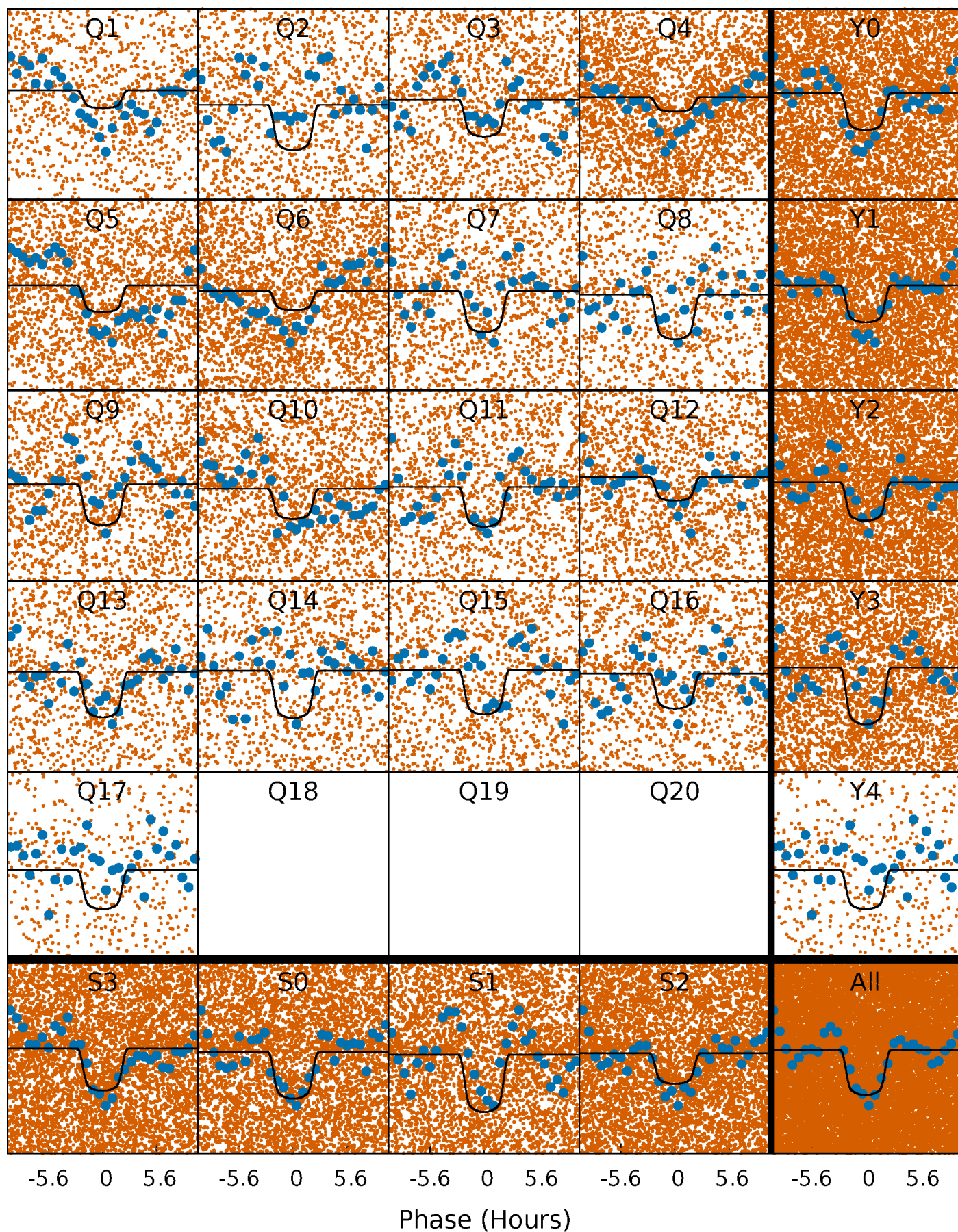
PDC Quarter-Phased Transit Curves

TCE 006706000-01 P= 0.964188 Days $T_0=131.698459$ (BKJD)



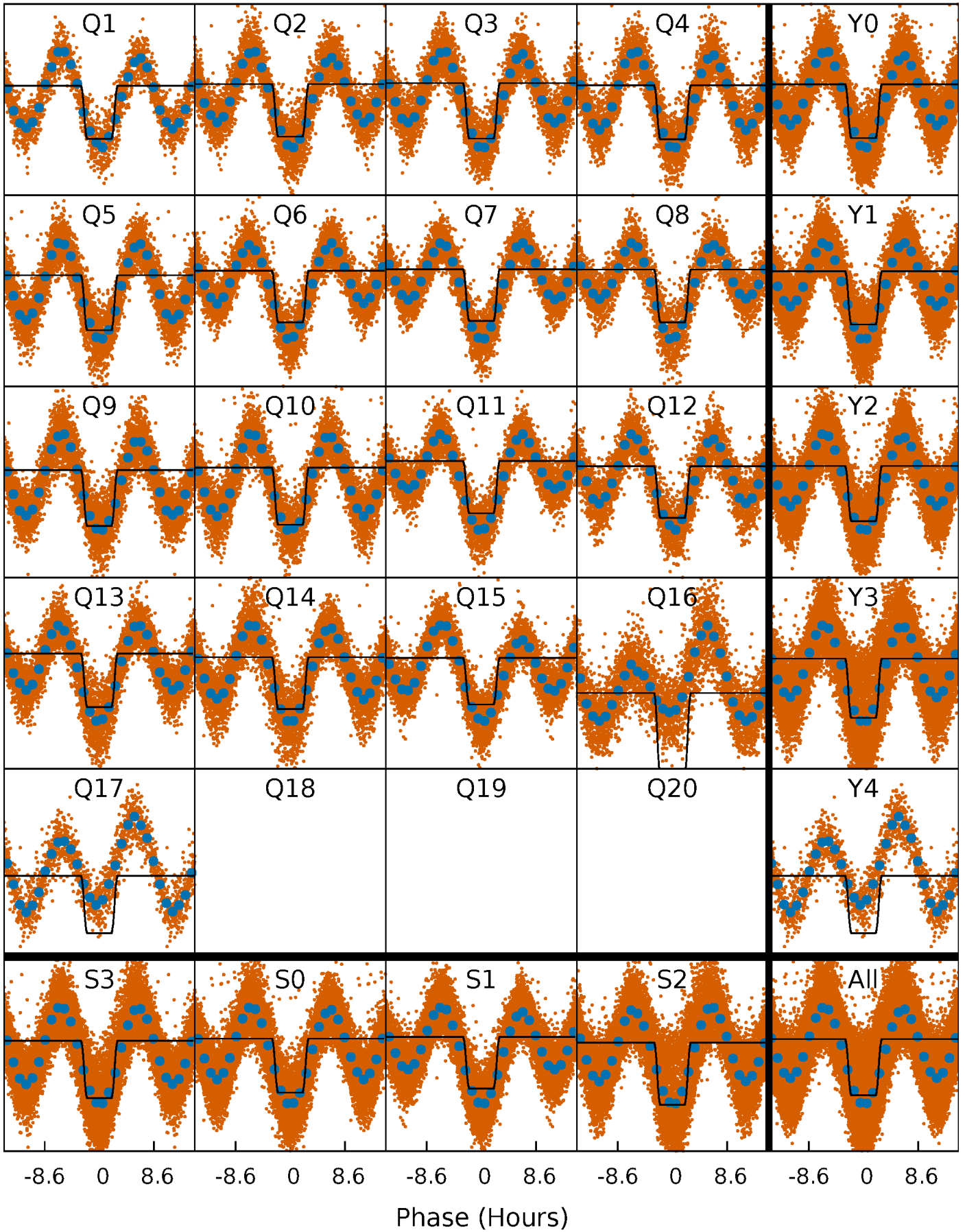
DV Quarter-Phased Transit Curves

TCE 006706000-01 P= 0.964188 Days $T_0=131.698459$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

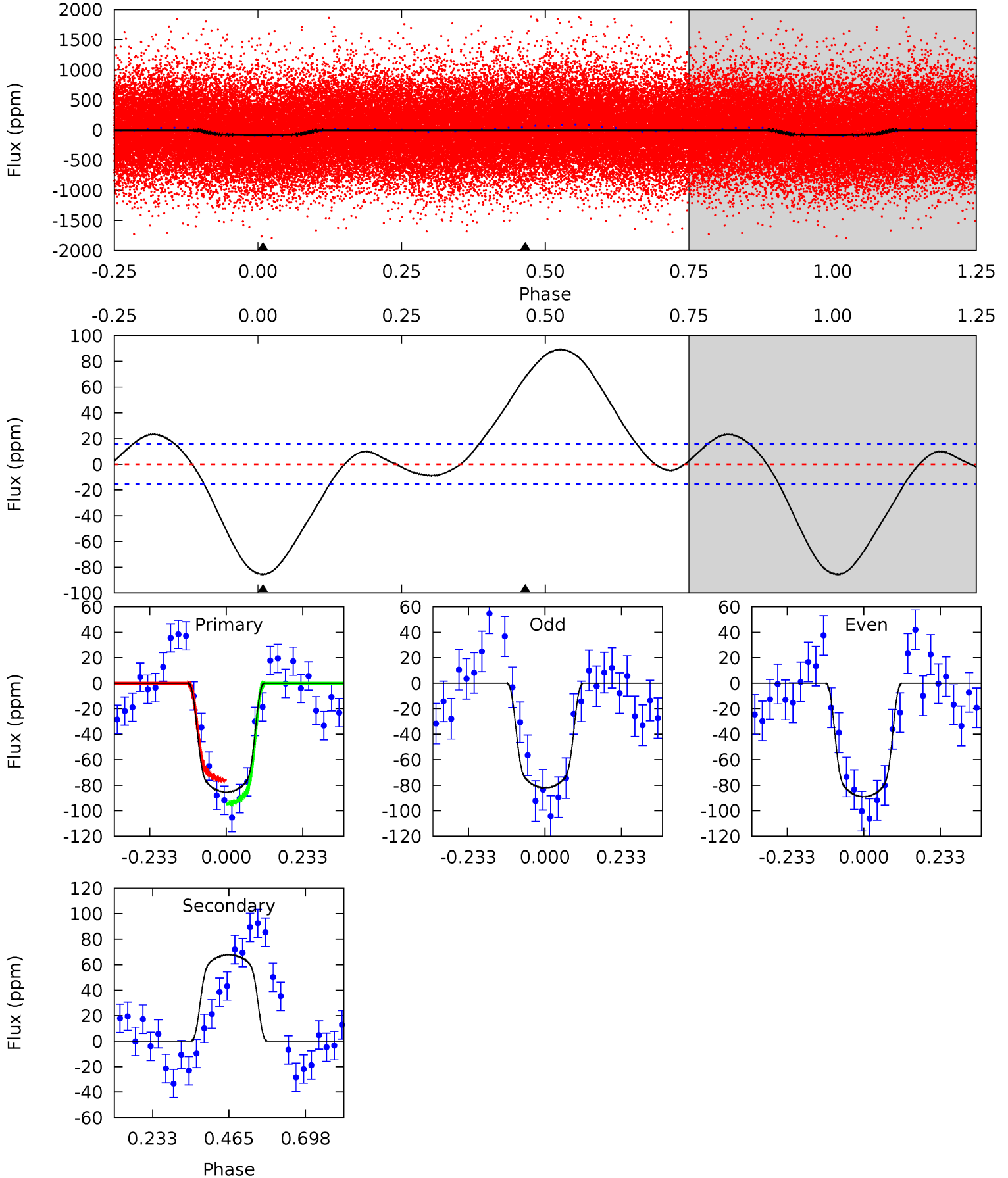
TCE 006706000-01 P= 0.964242 Days $T_0=131.511231$ (BKJD)



DV Model-Shift Uniqueness Test

006706000-01, P = 0.964188 Days, E = 130.734271 Days

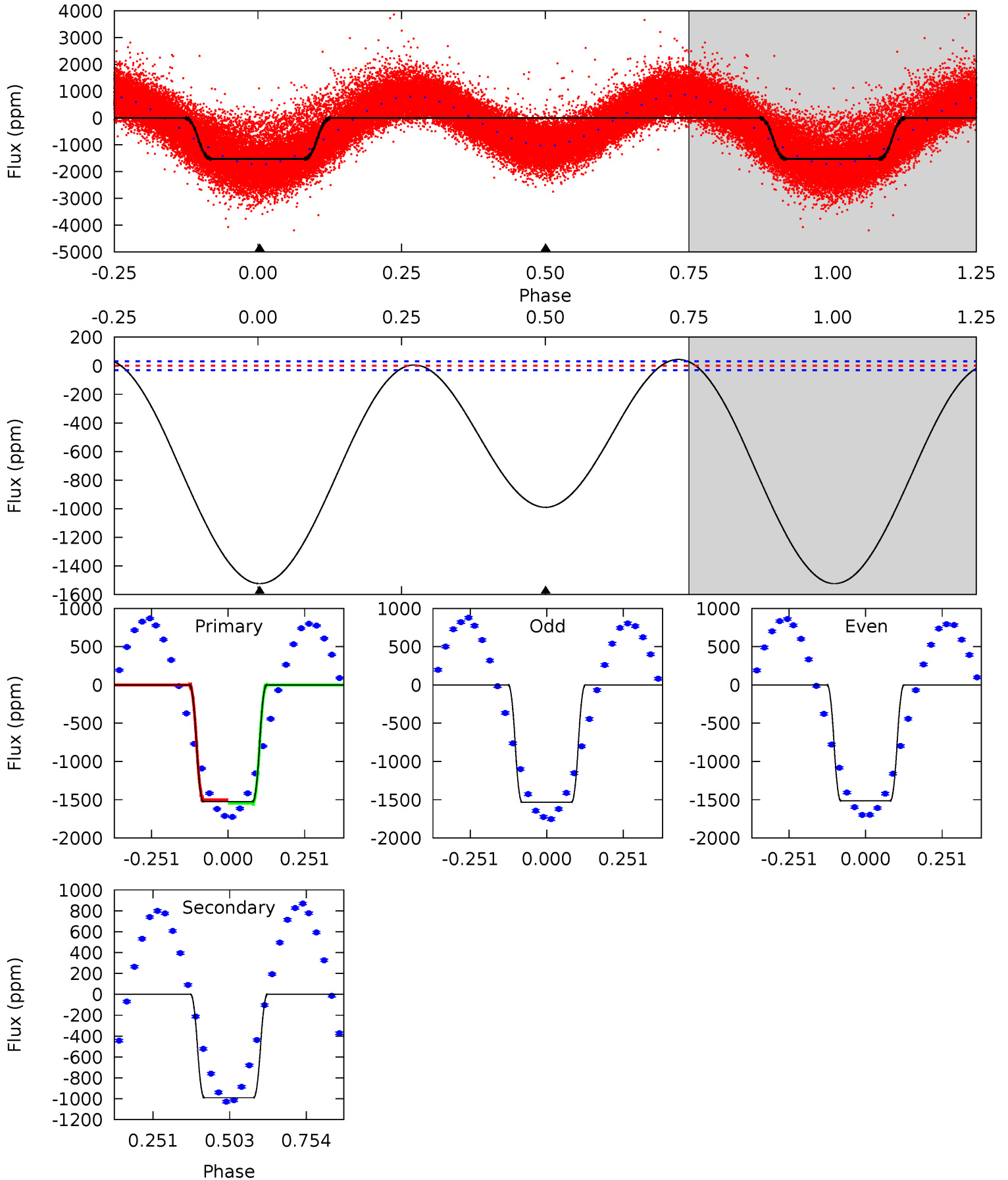
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.1	-19.1	0	0	4.38	1.19	1.75	24.1	24.1	-19.1	-19.1	0.97	0.92	0.51	2.64



Alt Model-Shift Uniqueness Test

006706000-01, P = 0.964242 Days, E = 131.511231 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
214.2	139.2	0	0	4.37	1.15	5.03	214.2	214.2	139.2	139.2	1.42	0.98	0.03	4.46



Stellar Parameters For KIC 006706000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6499^{+174}_{-232}	$4.378^{+0.065}_{-0.195}$	$-0.100^{+0.250}_{-0.300}$	$1.169^{+0.356}_{-0.127}$	$1.191^{+0.164}_{-0.164}$	$1.050^{+0.370}_{-0.560}$
	+3%/-4%	+1%/-4%	+250%/-300%	+30%/-11%	+14%/-14%	+35%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006706000-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	68 ± 4	$1.44^{+0.24}_{-0.15}$	3104^{+208}_{-166}	-5688^{+234}_{-235}	$-7.195^{+1.702}_{-1.792}$
Alt.	-990 ± 7	$4.97^{+0.86}_{-0.37}$	3096^{+219}_{-156}	5823^{+163}_{-192}	$8.839^{+1.298}_{-2.199}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

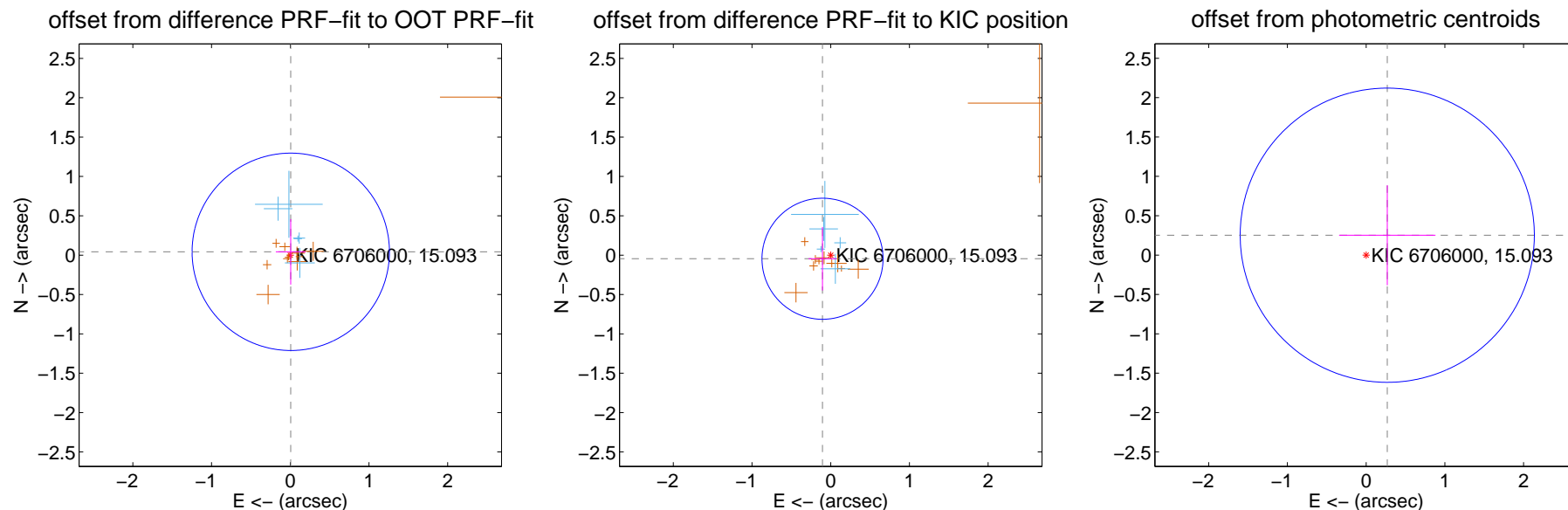
DV Centroid Data

Supplemental centroid analysis for 006706000-01. Kepler magnitude: 15.09. Transit SNR 13.30

There are 5 quarters with good PRF difference image offsets

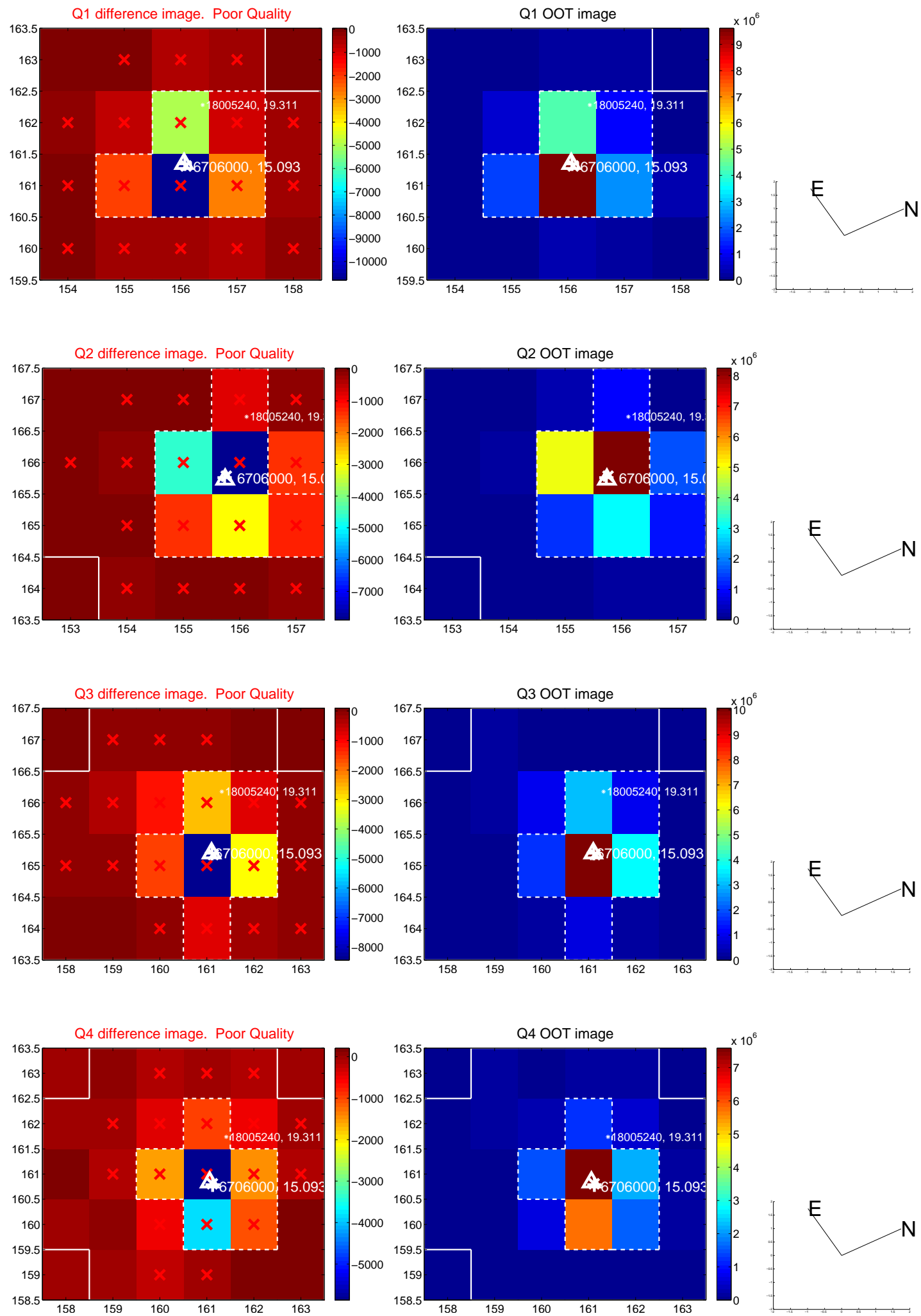
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.043 ± 0.418	0.10	-0.006 ± 0.190	0.042 ± 0.416
PRF-fit source offset from KIC position	0.114 ± 0.256	0.44	0.104 ± 0.178	-0.046 ± 0.404
photometric centroid source offset	0.37 ± 0.62	0.59	-0.27 ± 0.61	0.25 ± 0.63

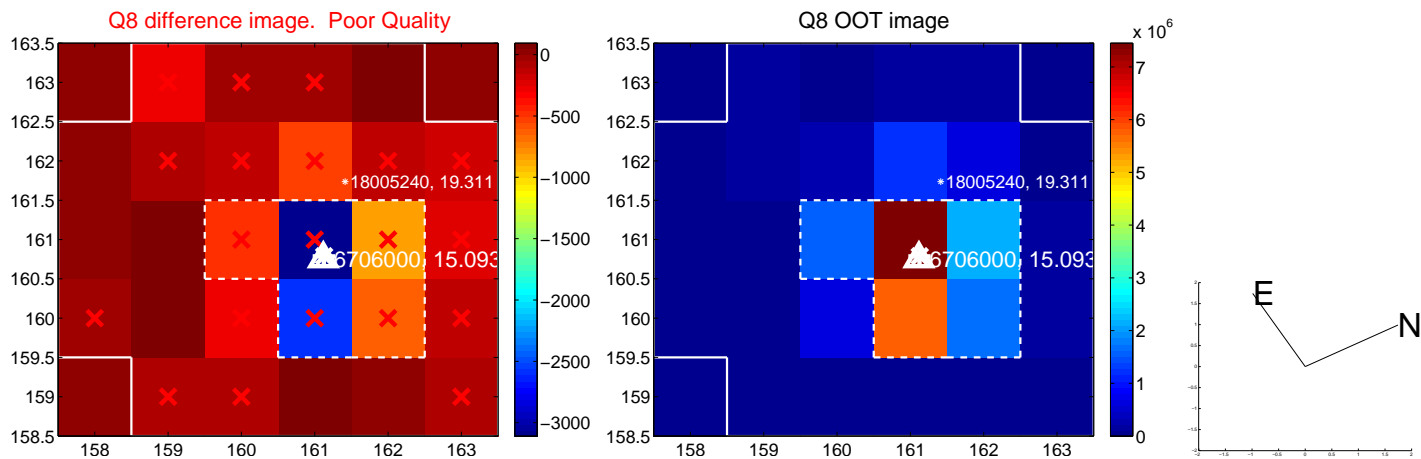
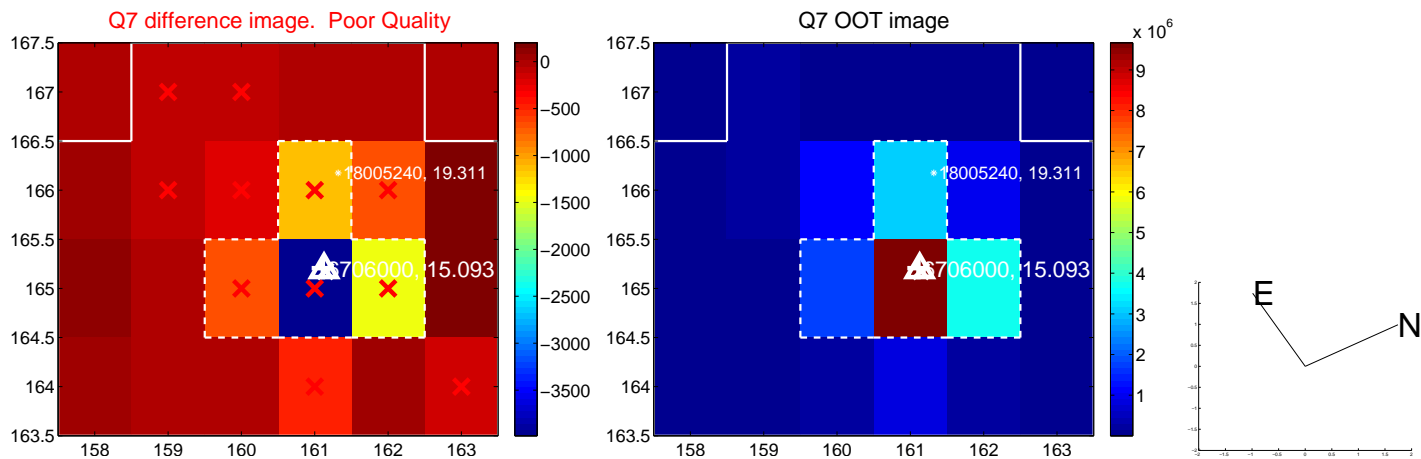
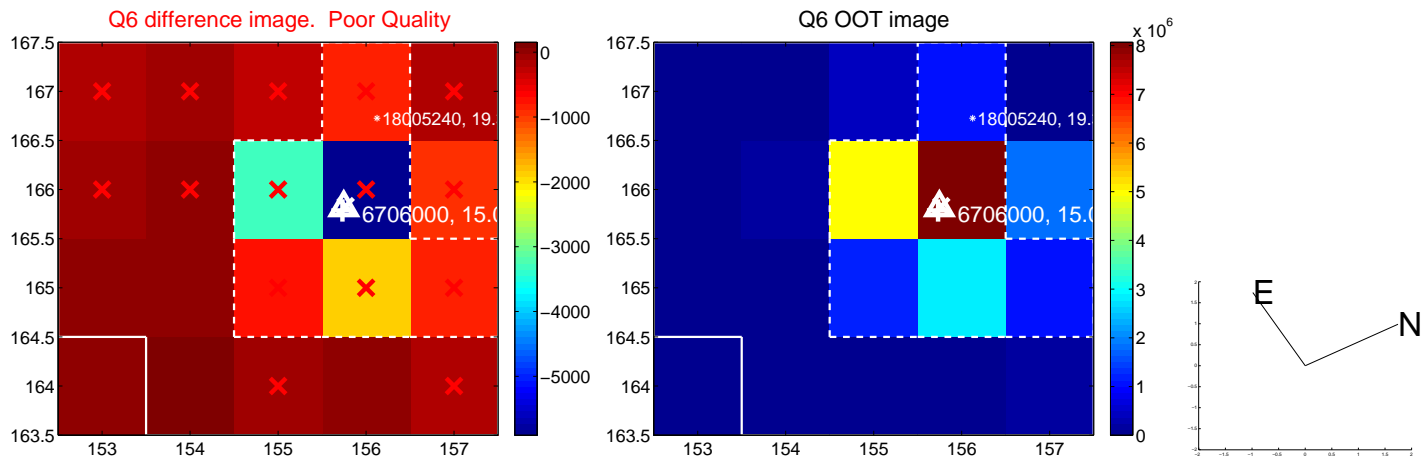
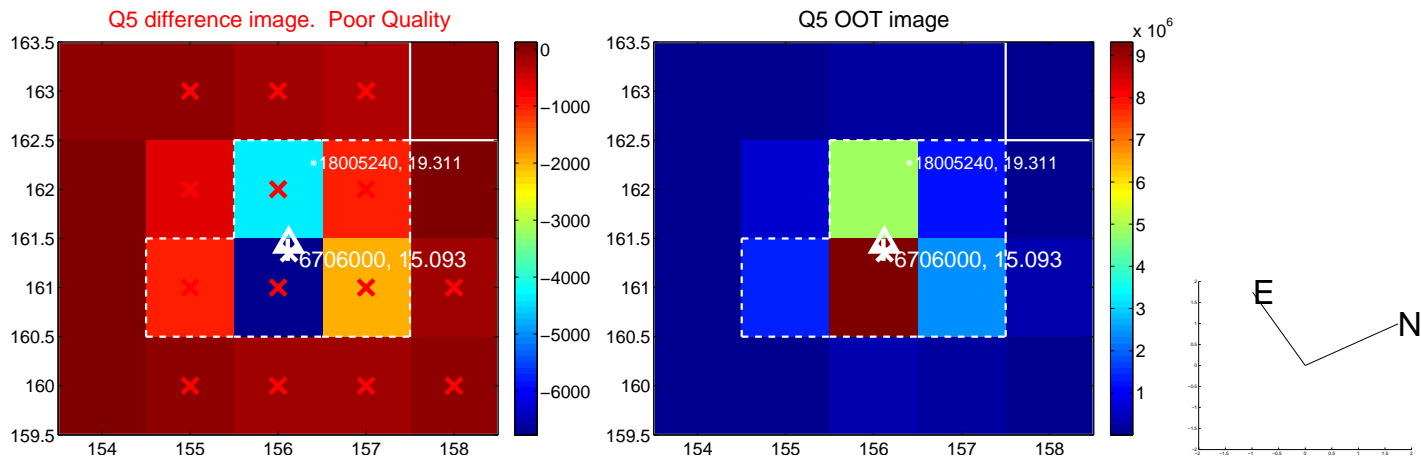


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

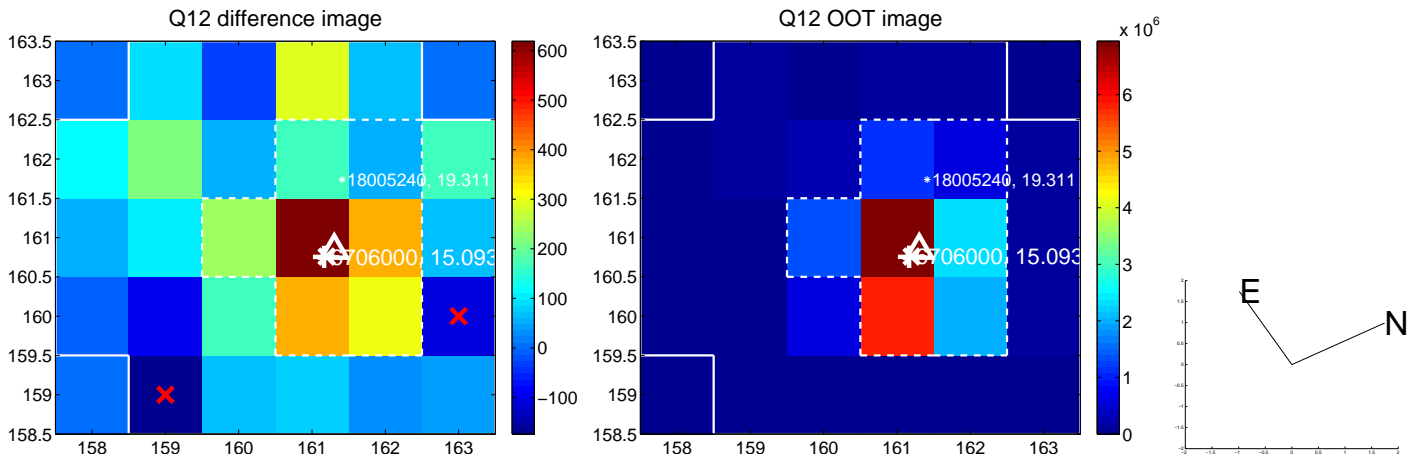
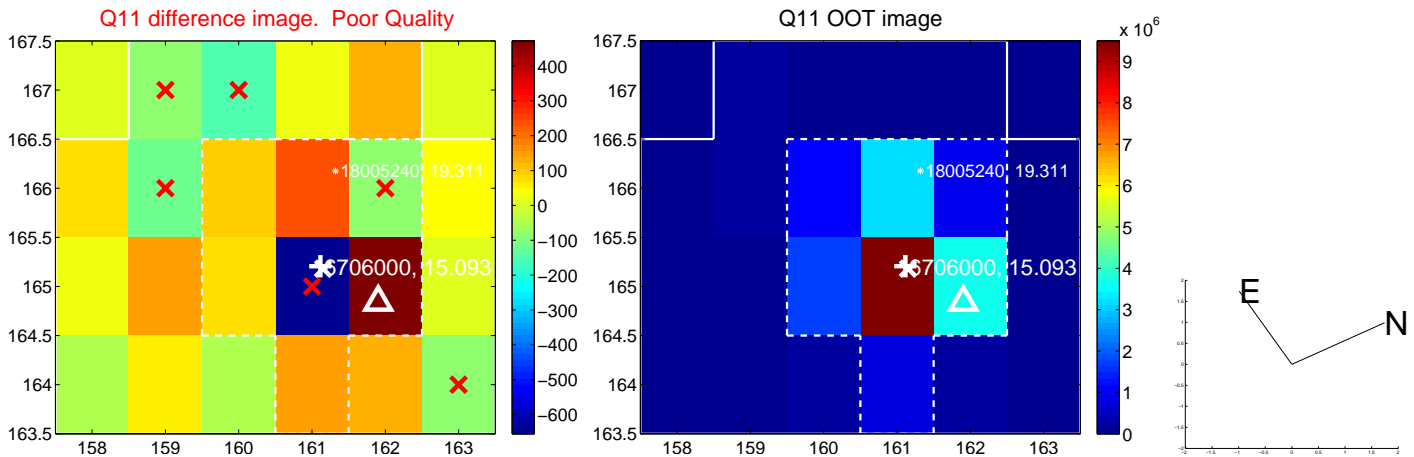
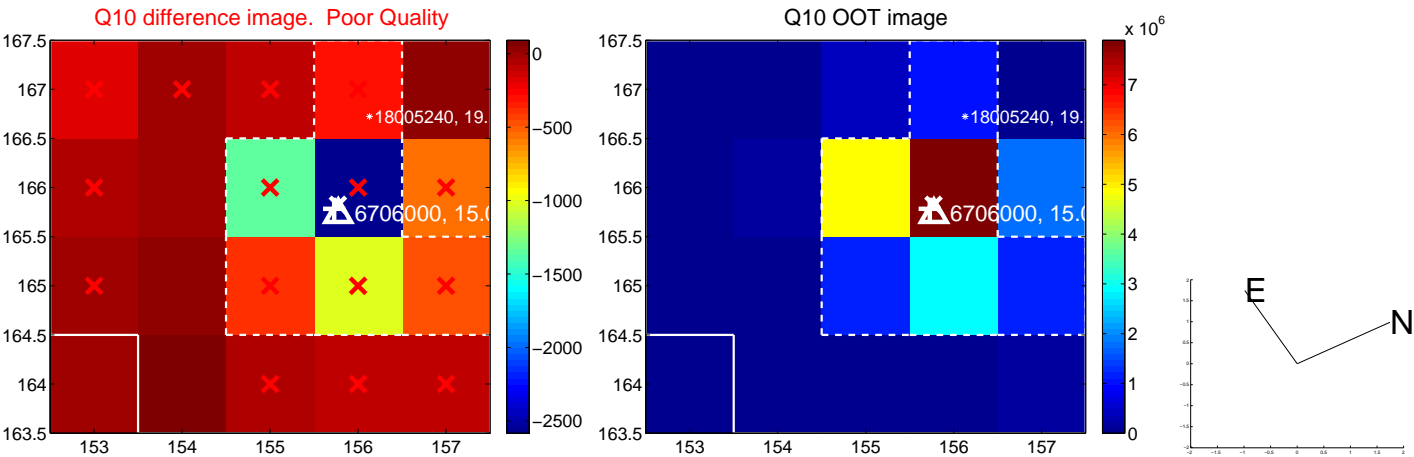
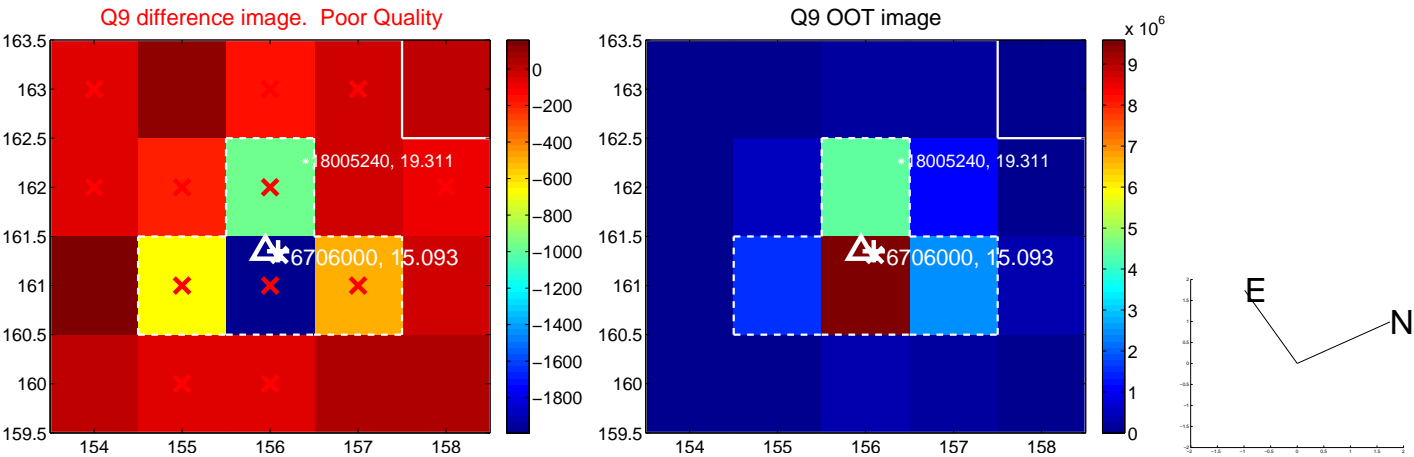
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



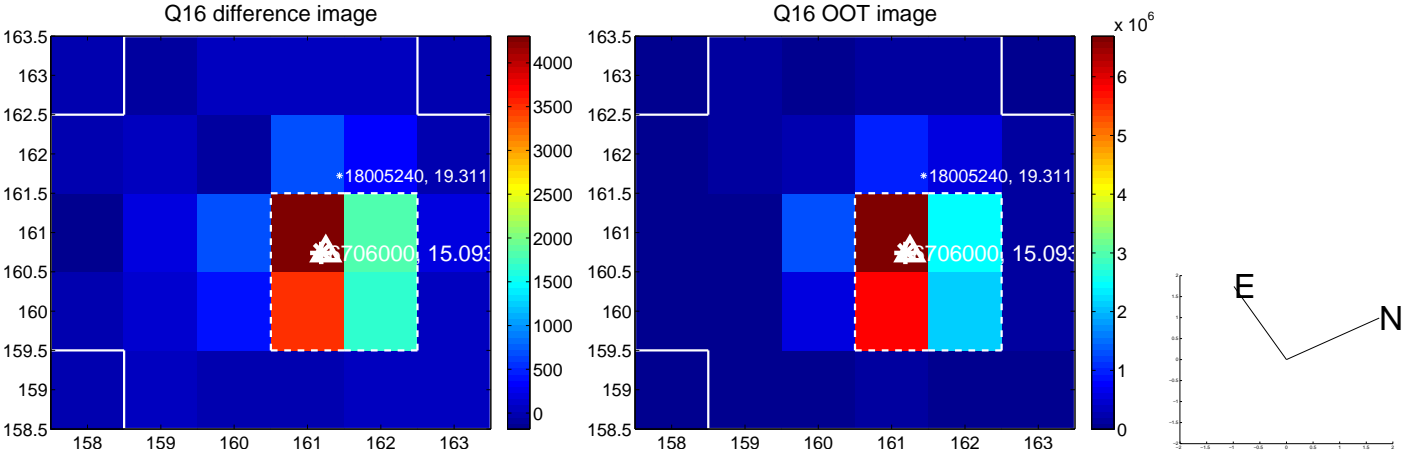
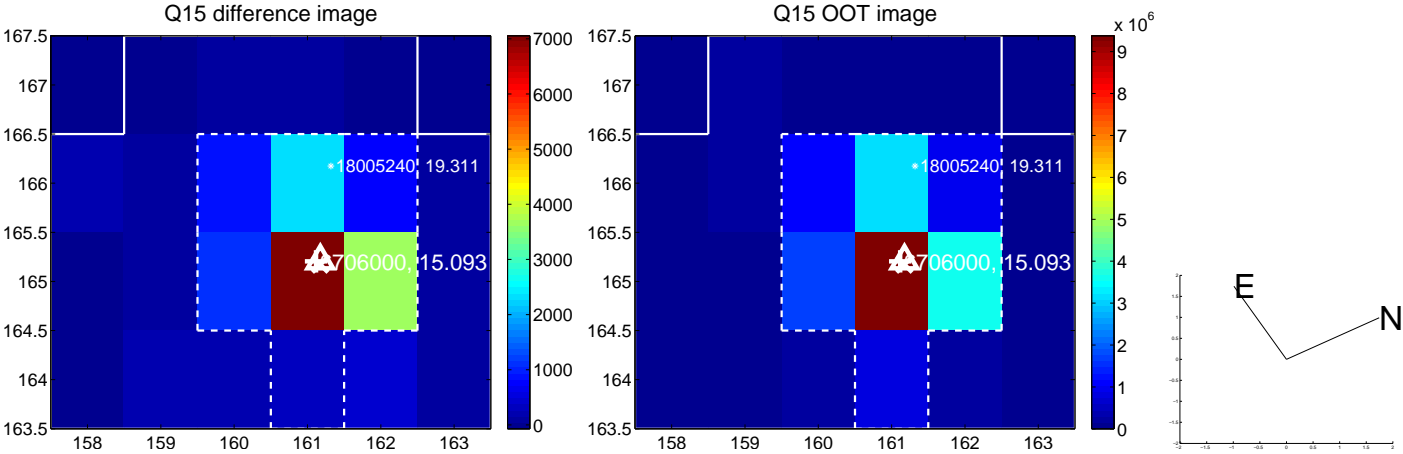
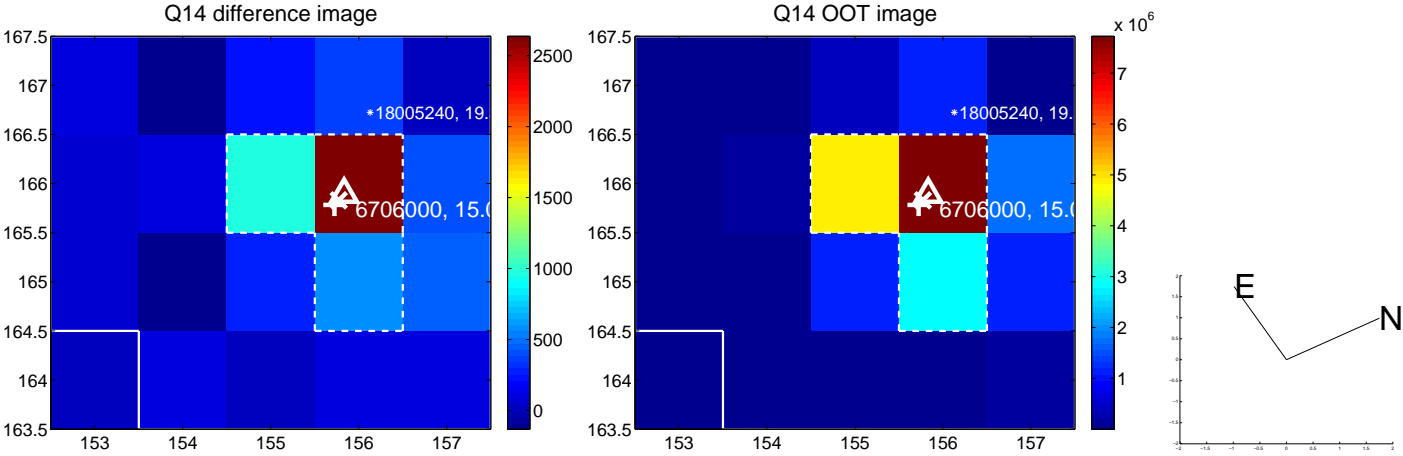
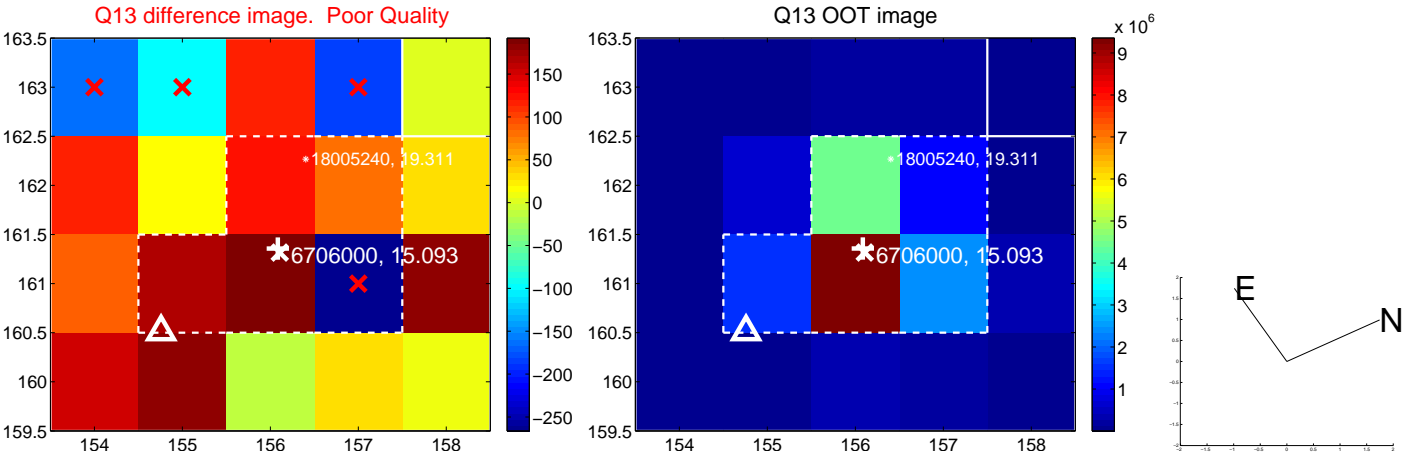
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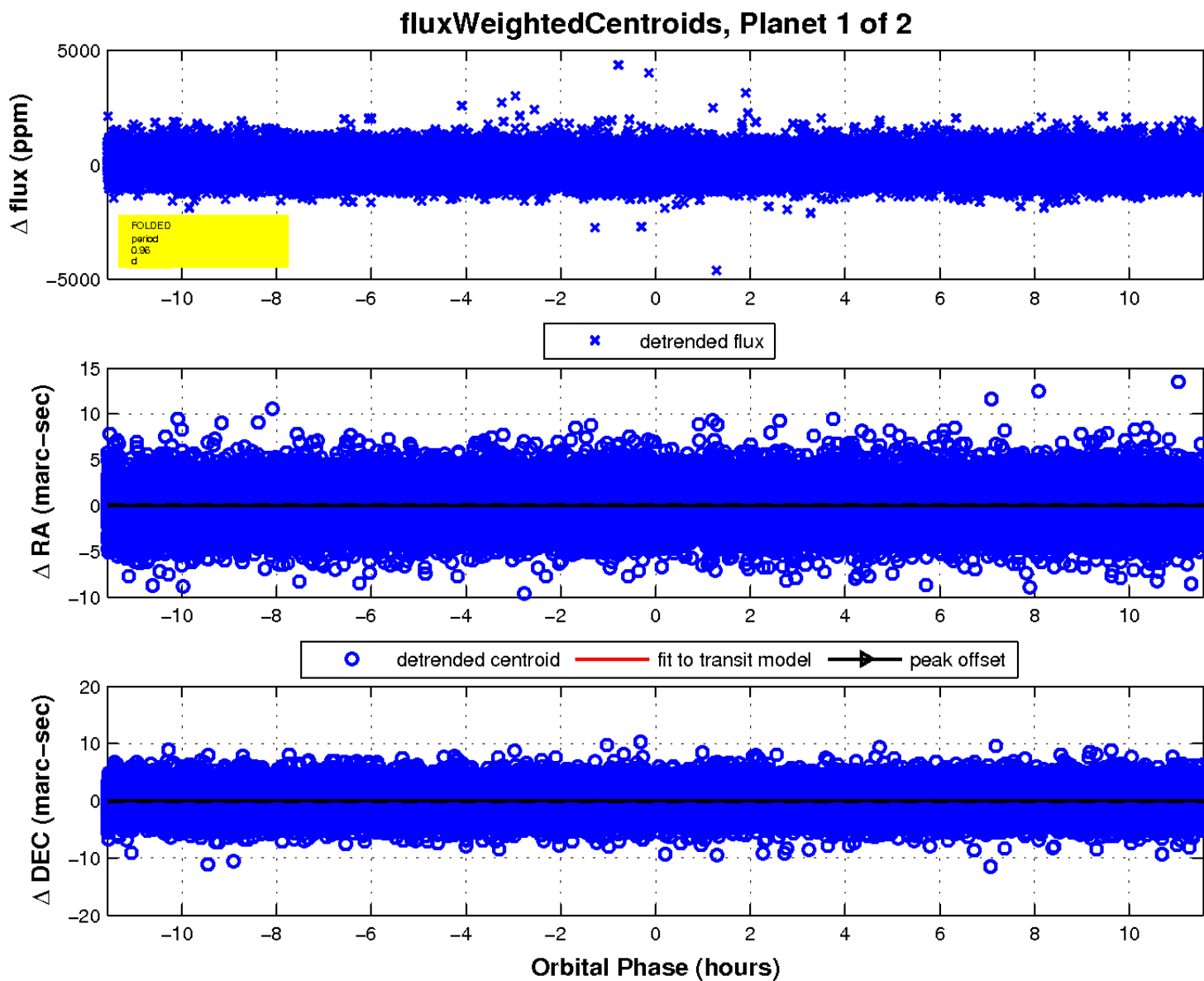
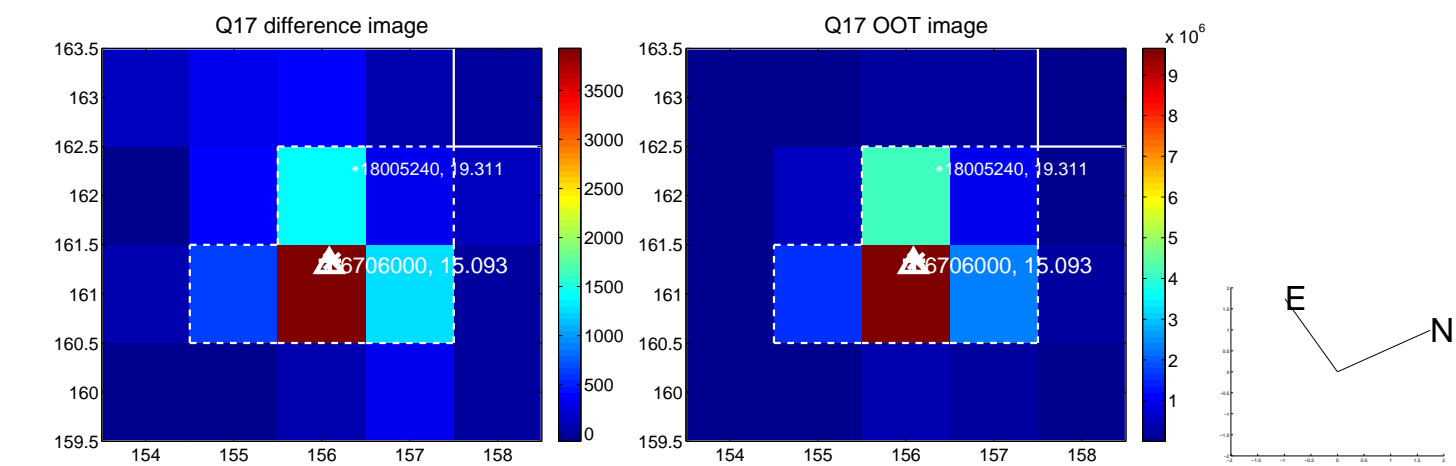
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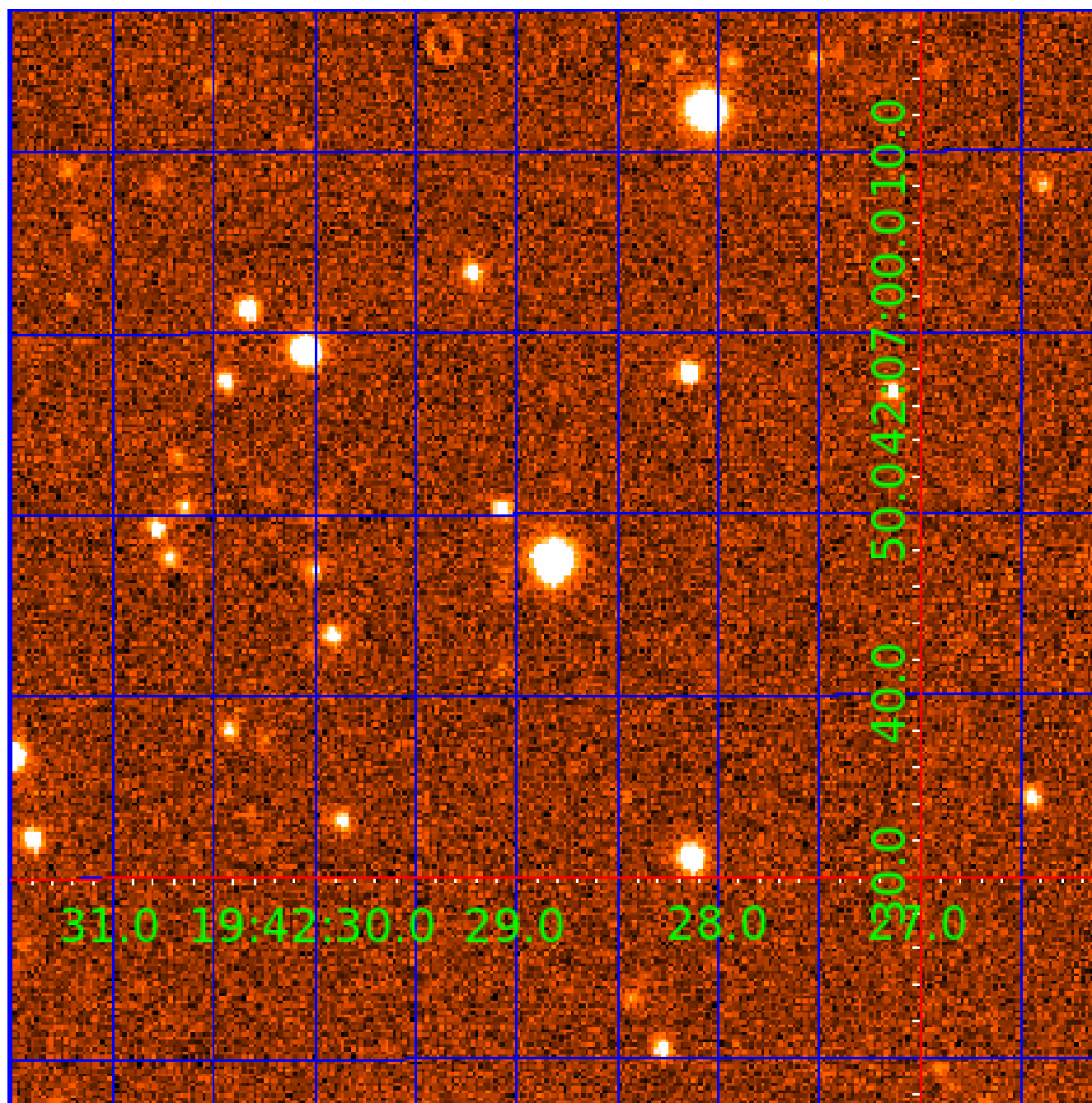


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006706000

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

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006706000-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

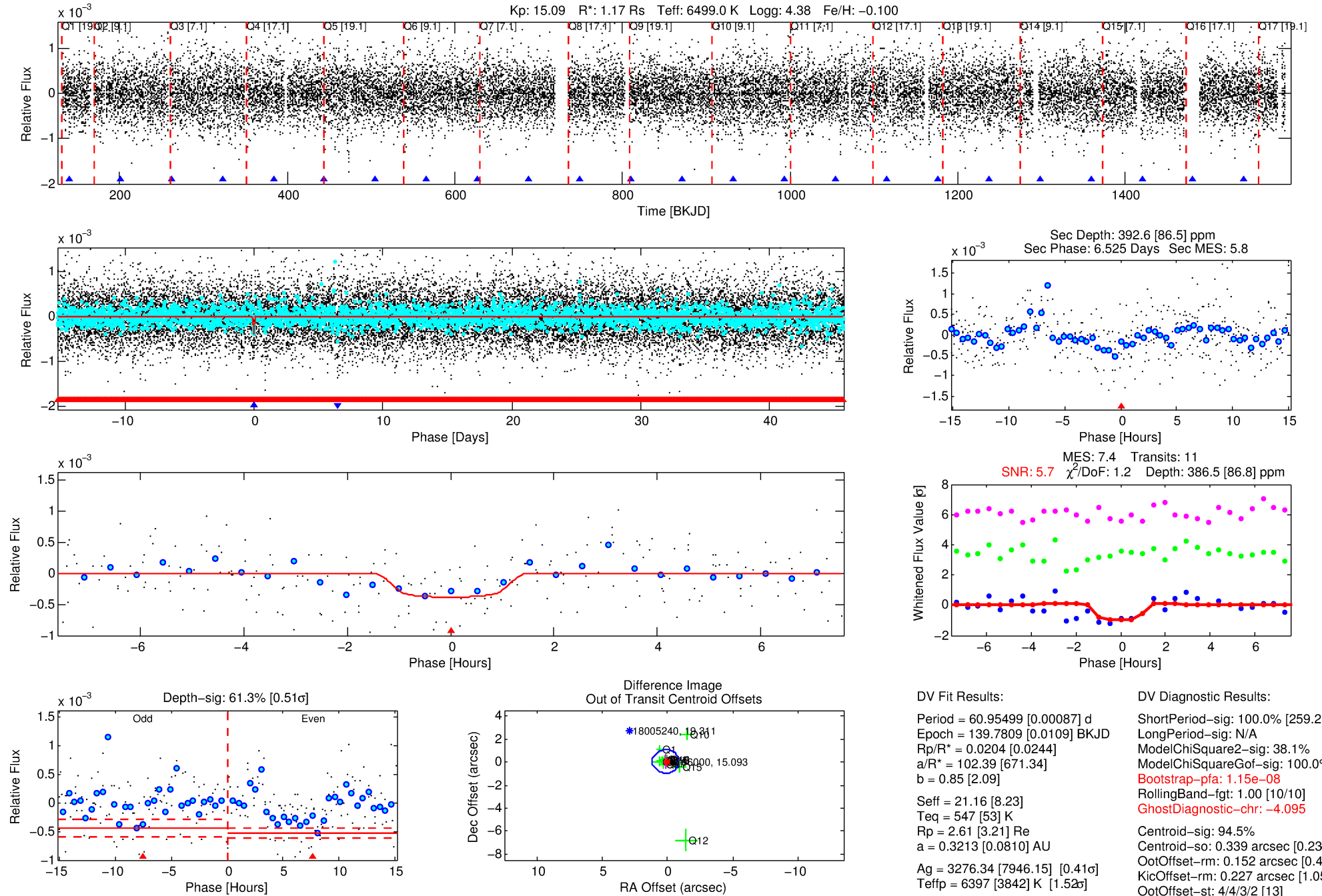
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006706000-02

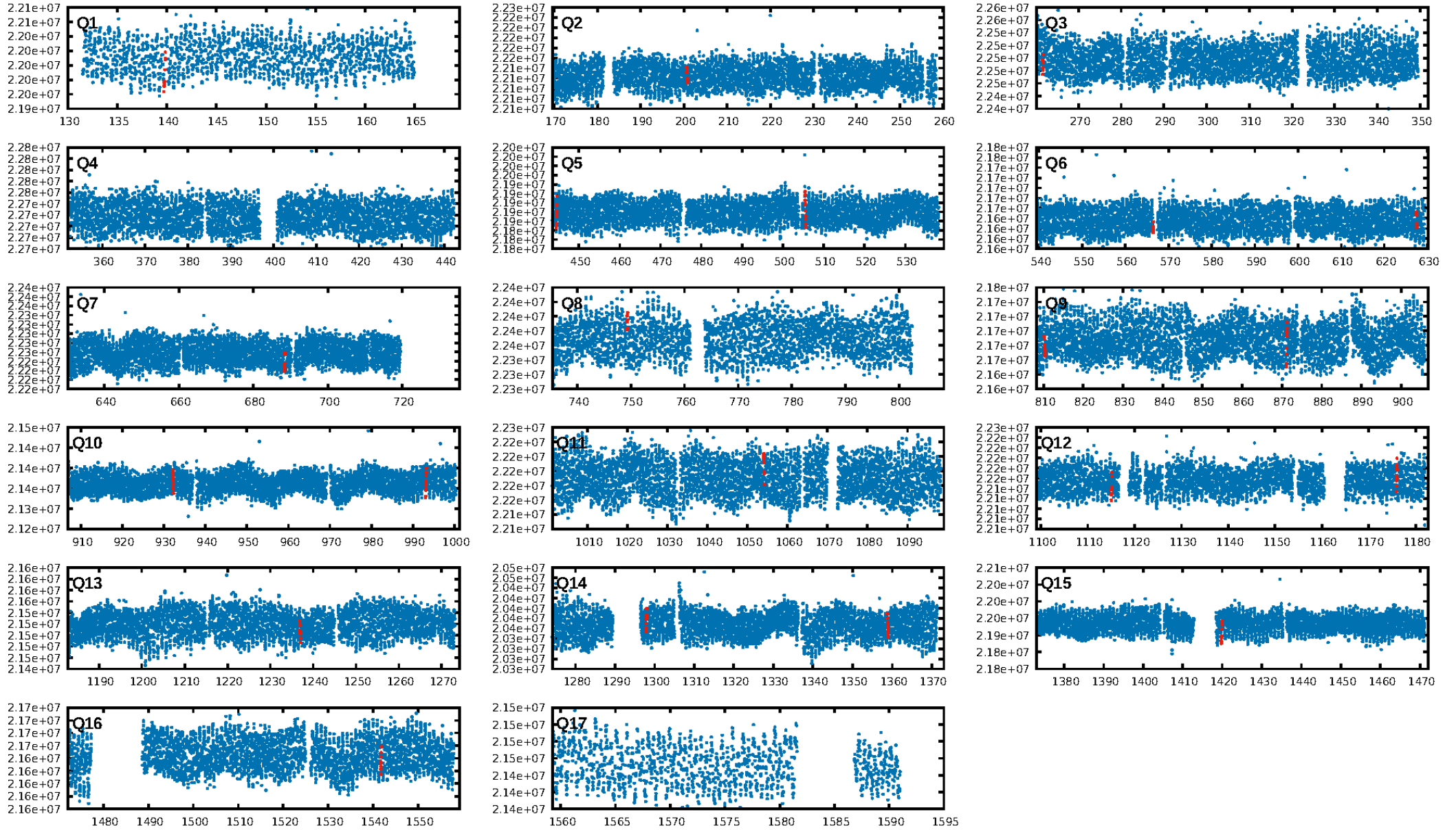
No Significant Match Found

DV One-Page Summary

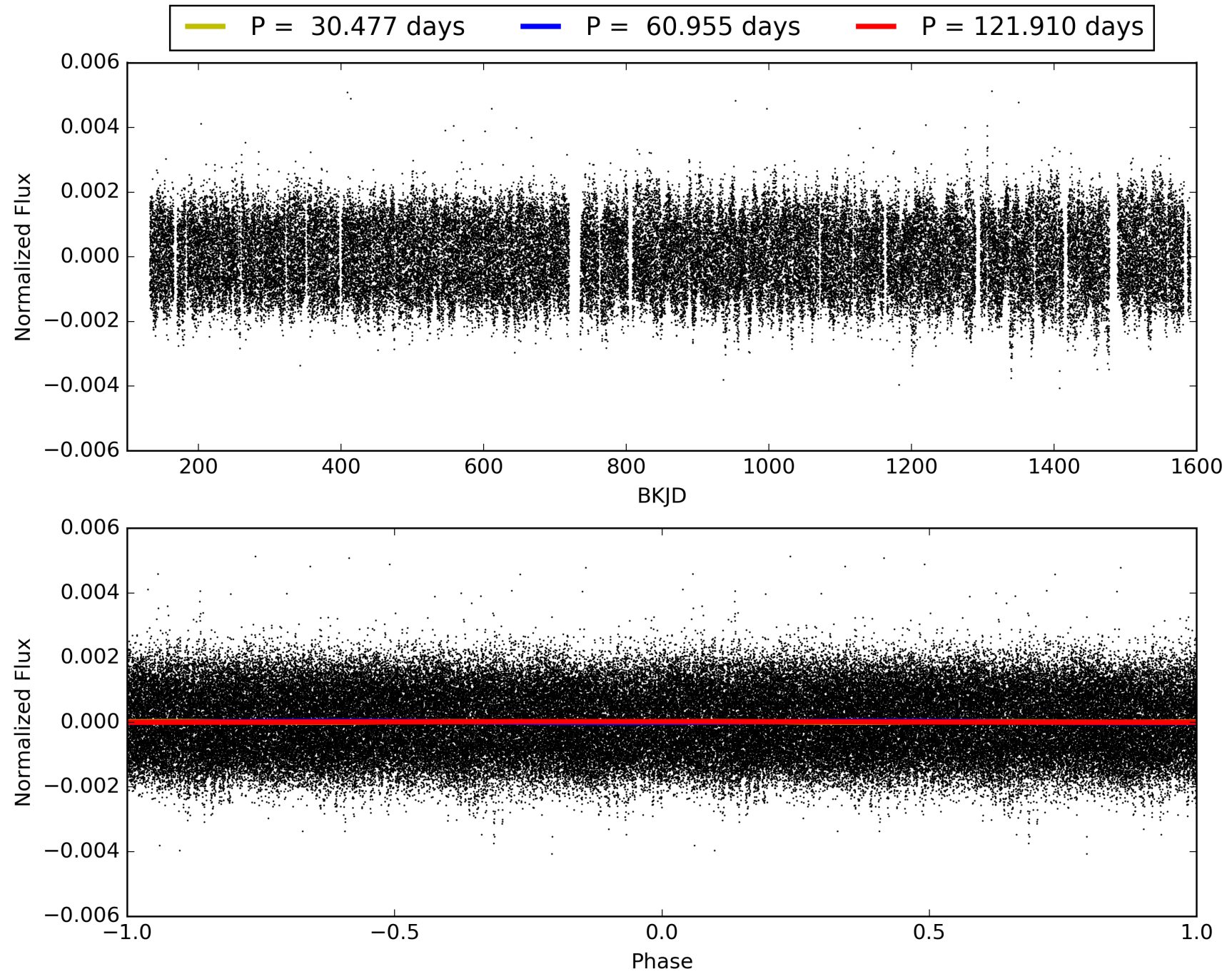
KIC: 6706000 Candidate: 2 of 2 Period: 60.955 d



TCE 006706000-02, PDC Light Curves

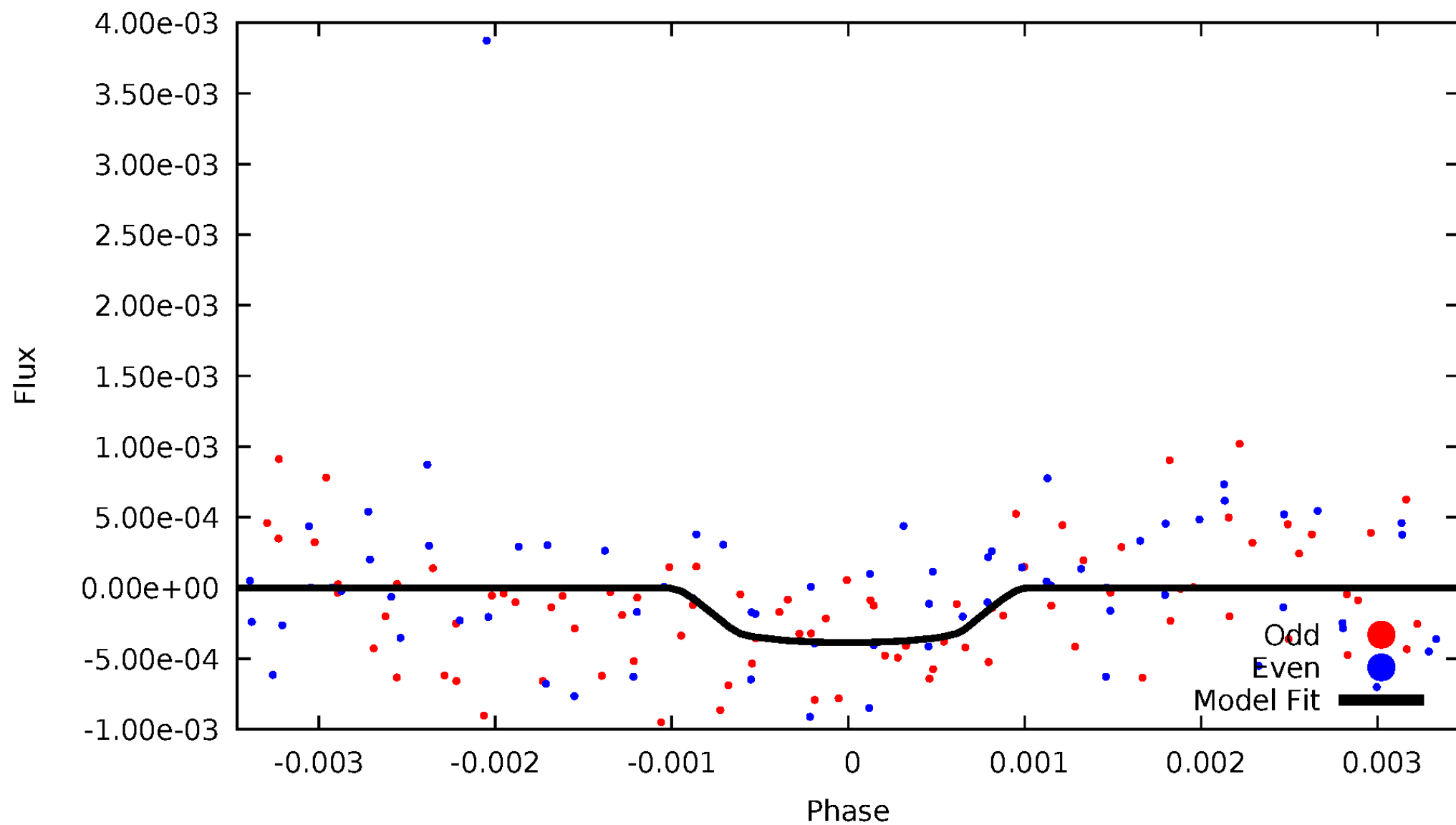


TCE 006706000-02



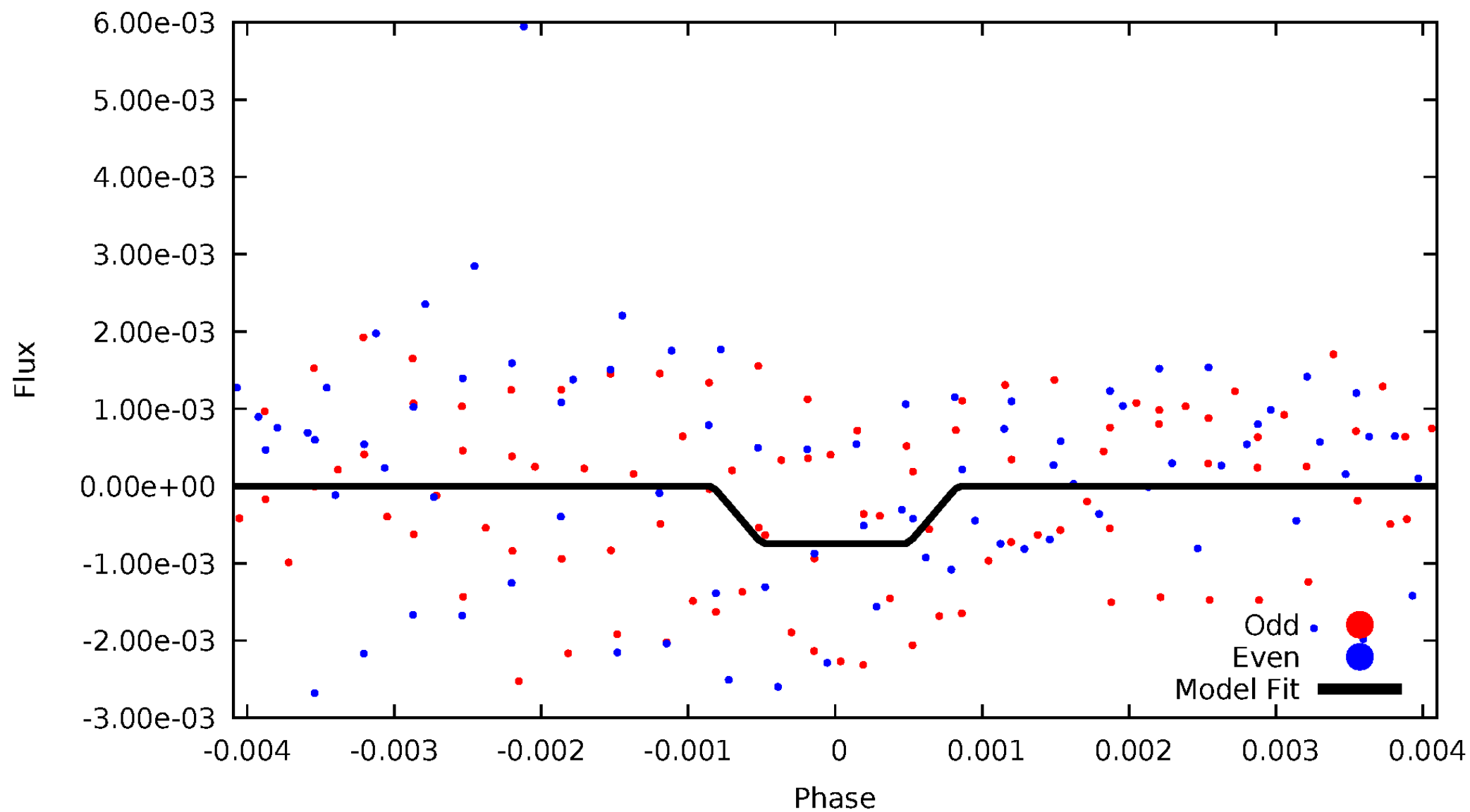
DV Odd/Even

TCE 006706000-02



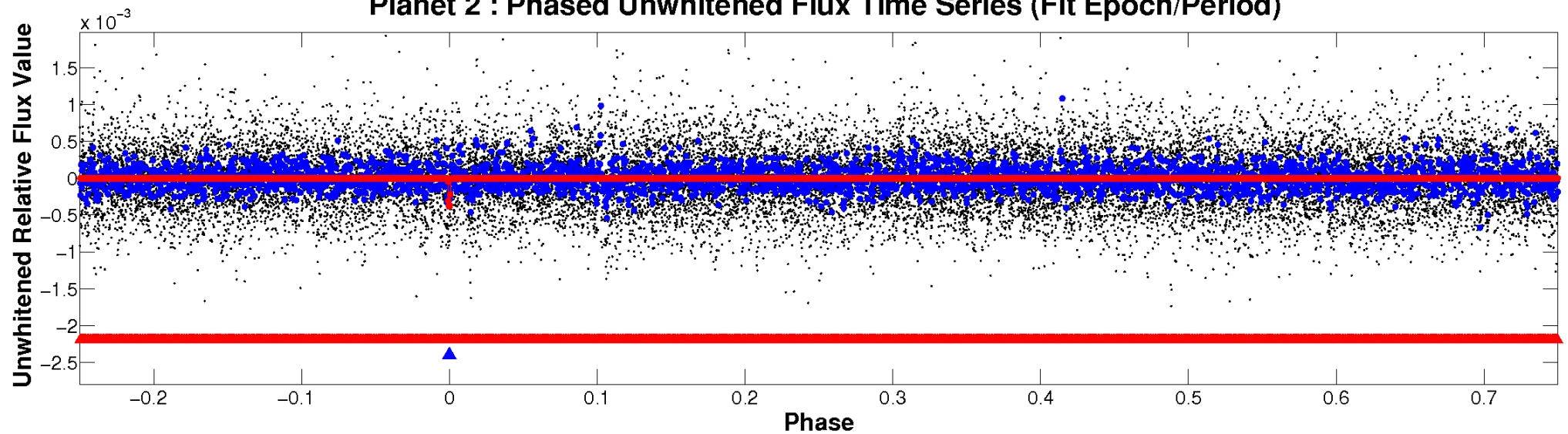
ALT Odd/Even

TCE 006706000-02

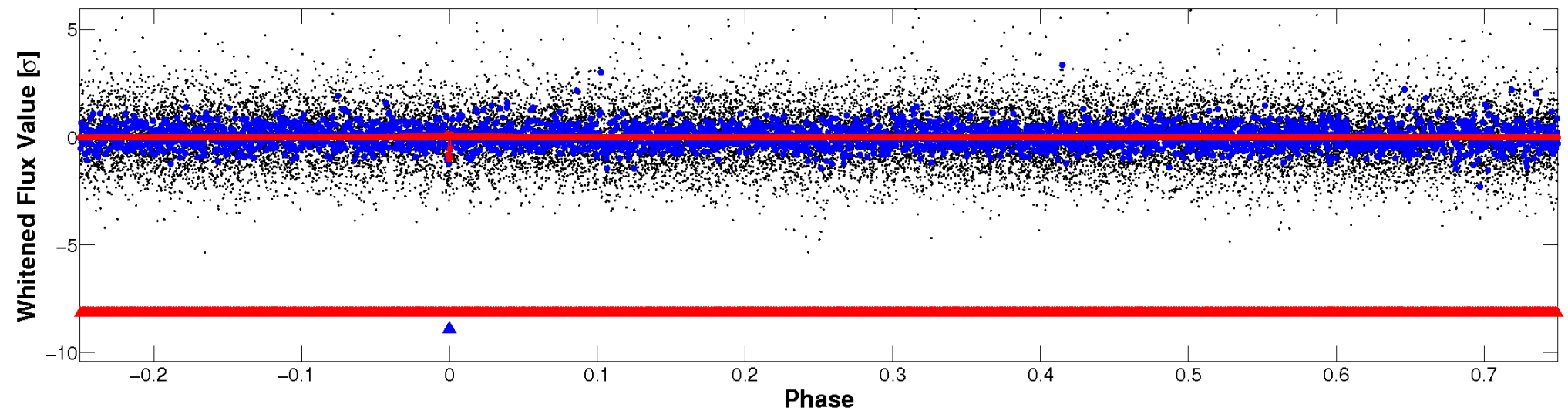


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

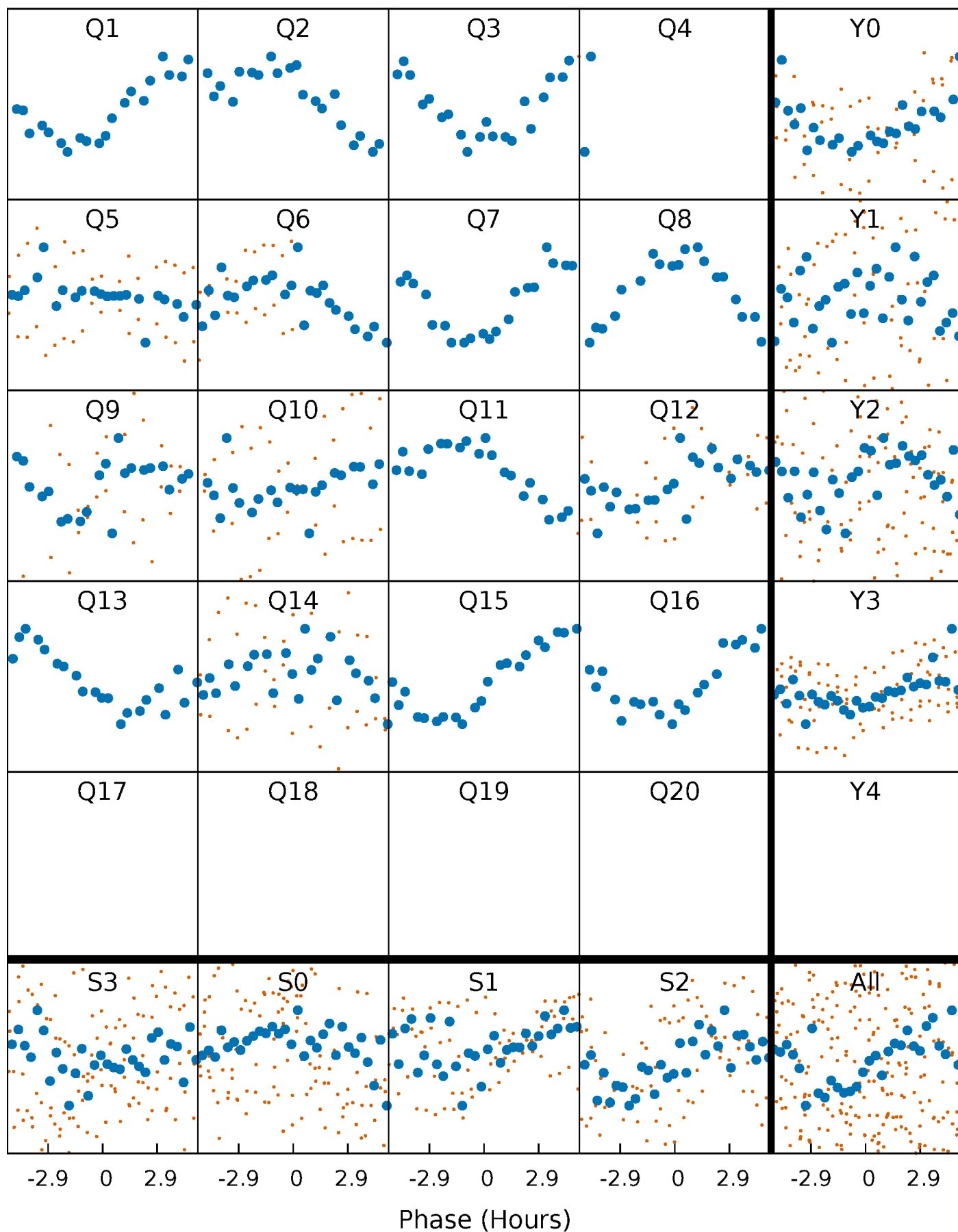


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



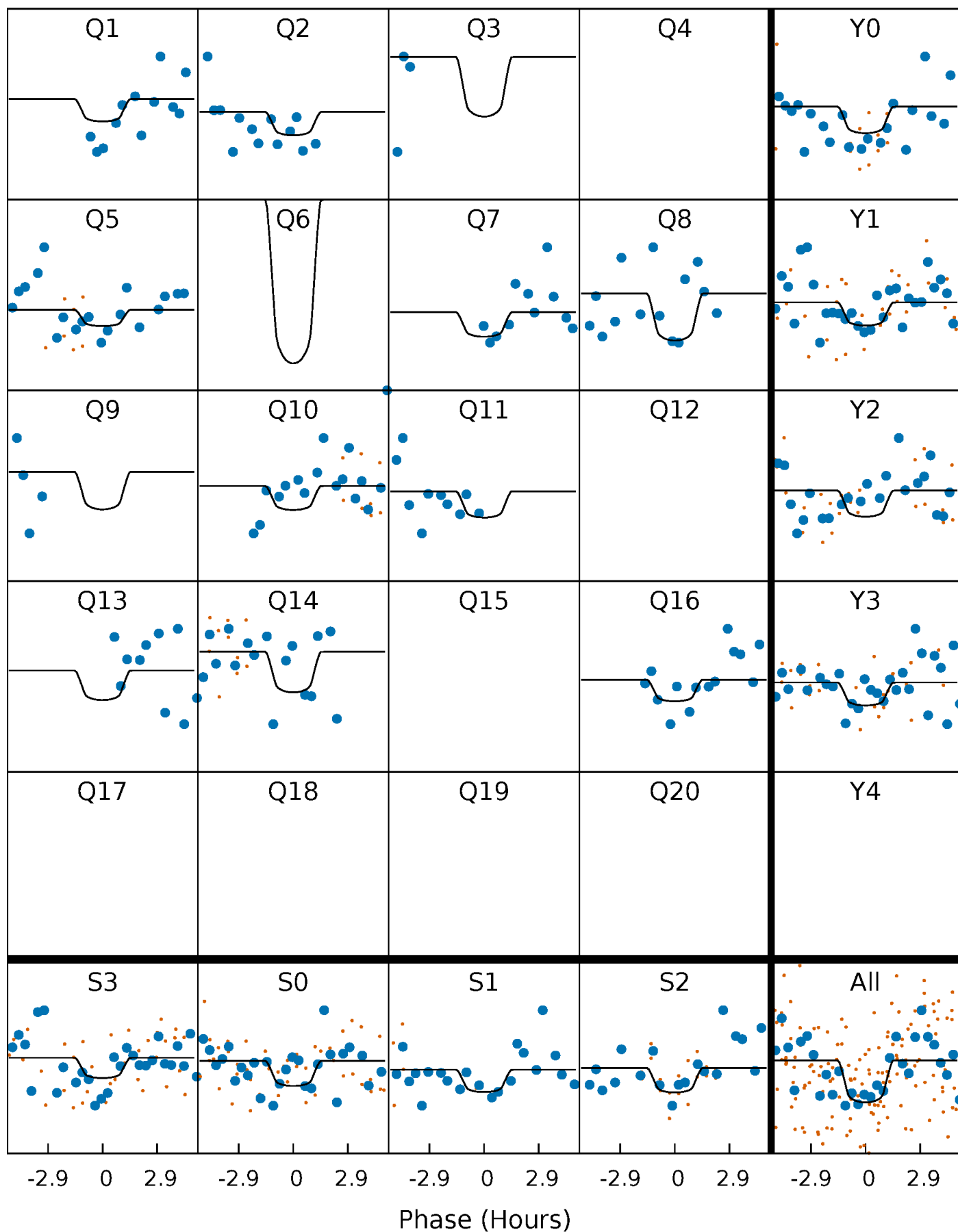
PDC Quarter-Phased Transit Curves

TCE 006706000-02 P= 60.954992 Days $T_0=139.780863$ (BKJD)



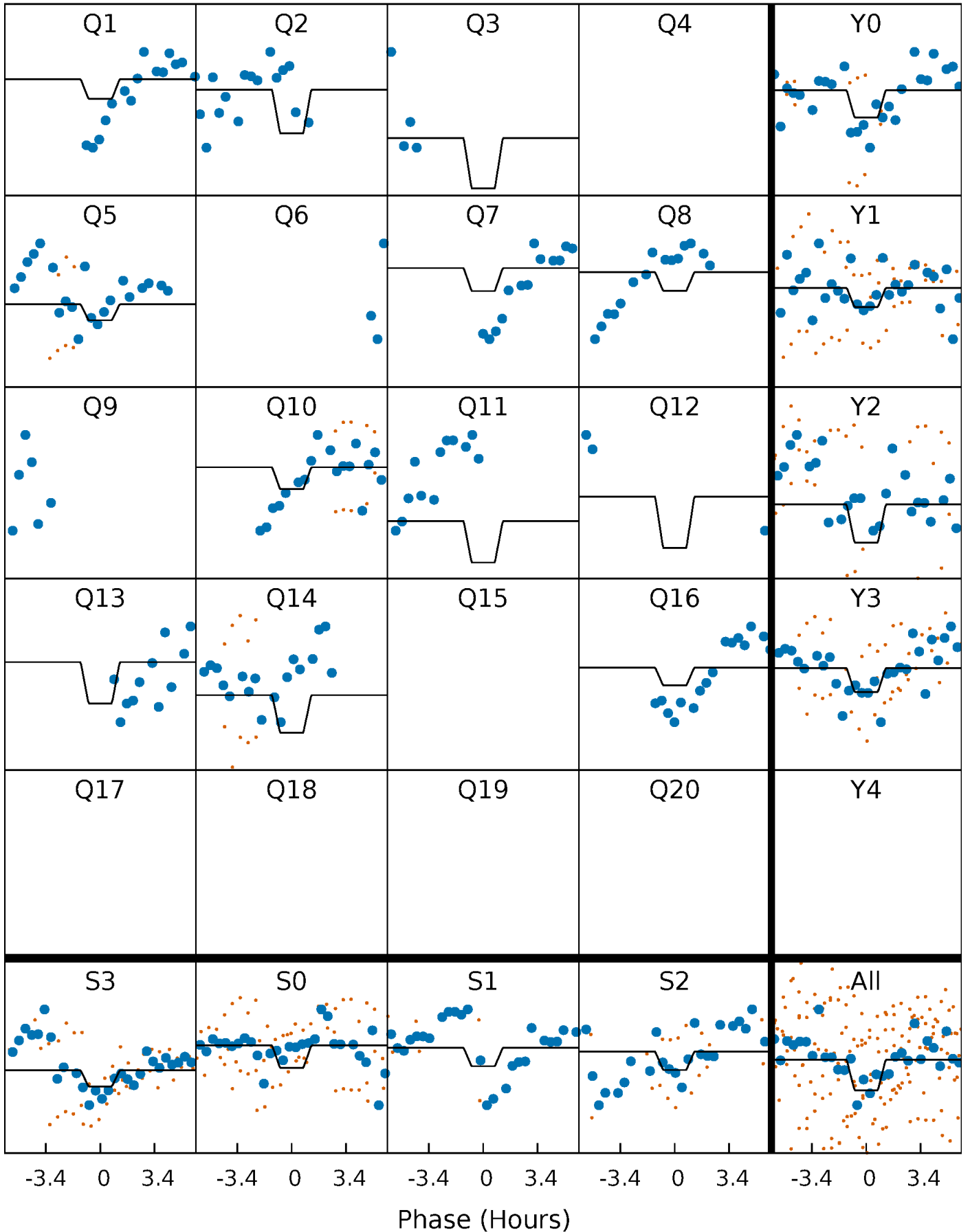
DV Quarter-Phased Transit Curves

TCE 006706000-02 $P = 60.954992$ Days $T_0 = 139.780863$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

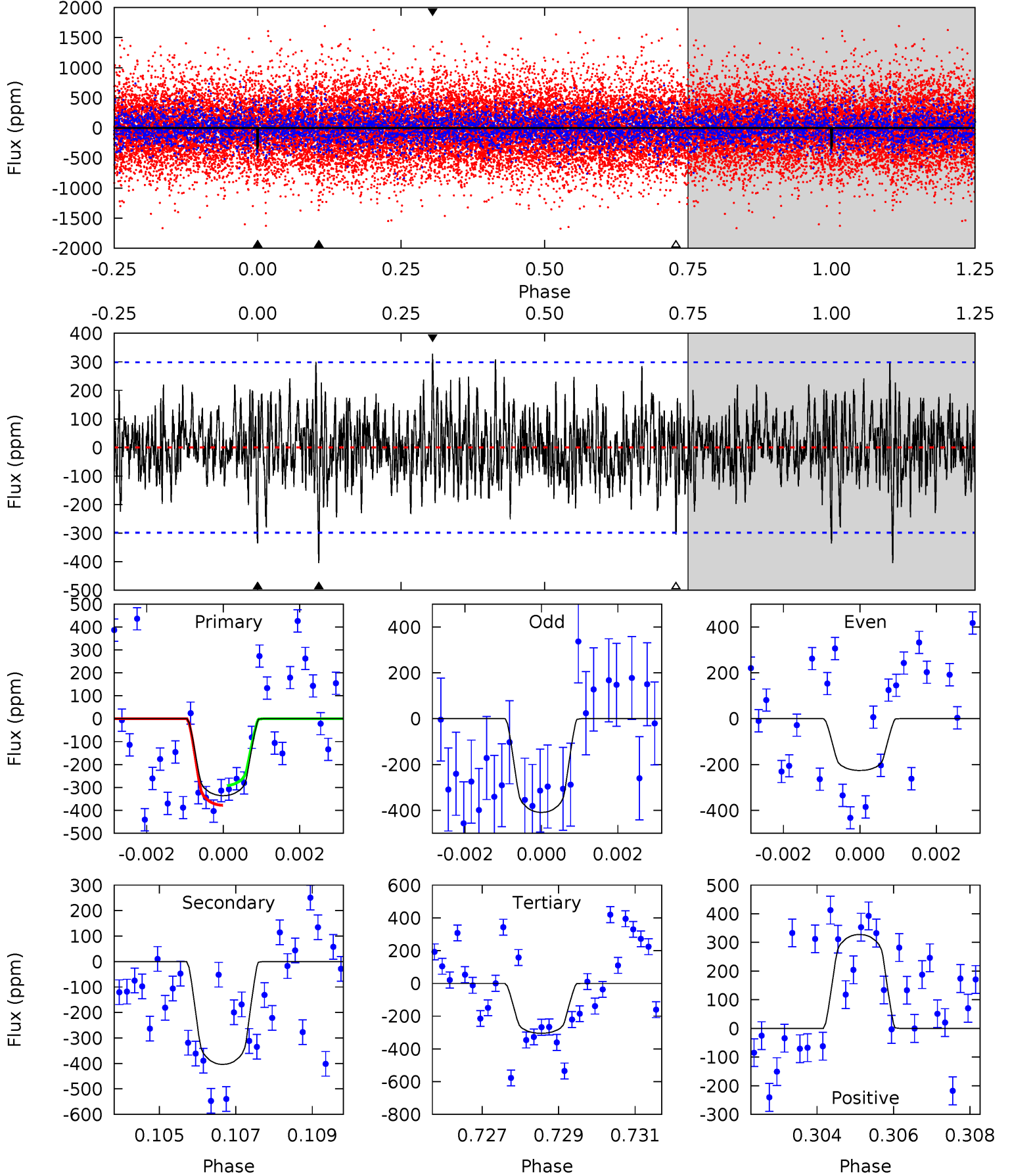
TCE 006706000-02 $P = 60.953927$ Days $T_0 = 139.791391$ (BKJD)



DV Model-Shift Uniqueness Test

006706000-02, P = 60.954992 Days, E = 78.825871 Days

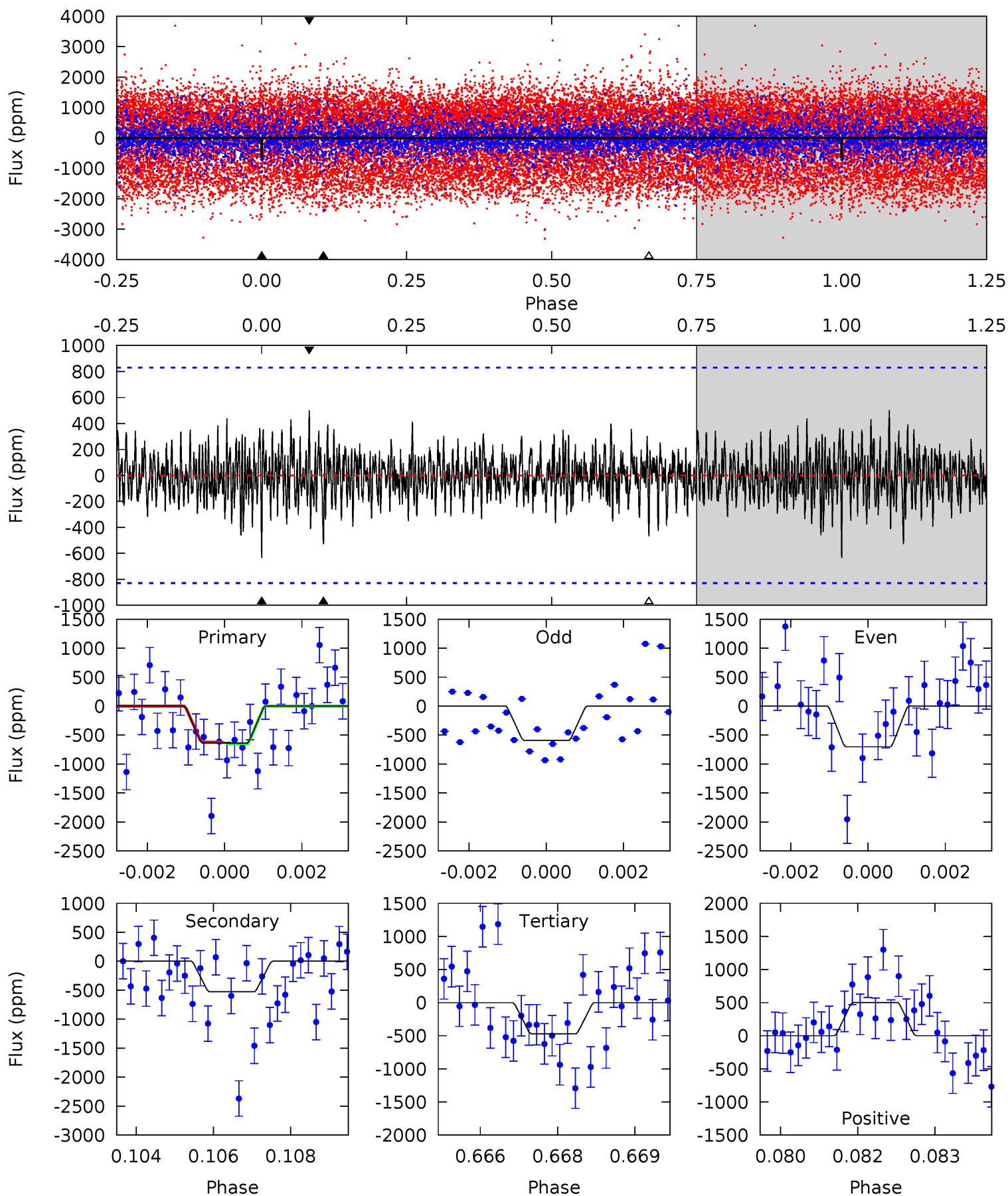
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.99	7.20	5.44	5.84	5.31	3.07	1.64	0.55	0.14	1.76	1.36	1.61	0.89	0.45	0.77



Alt Model-Shift Uniqueness Test

006706000-02, P = 60.953927 Days, E = 78.837464 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.11	3.41	3.03	3.24	5.36	3.15	0.91	1.08	0.87	0.38	0.18	0.35	1.26	0.44	0.11



Stellar Parameters For KIC 006706000

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6499^{+174}_{-232}	$4.378^{+0.065}_{-0.195}$	$-0.100^{+0.250}_{-0.300}$	$1.169^{+0.356}_{-0.127}$	$1.191^{+0.164}_{-0.164}$	$1.050^{+0.370}_{-0.560}$
	+3%/-4%	+1%/-4%	+250%/-300%	+30%/-11%	+14%/-14%	+35%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006706000-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-404 ± 56	$3.54^{+2.86}_{-2.23}$	777^{+57}_{-40}	5580^{+4544}_{-1191}	1749^{+11826}_{-1218}
Alt.	-528 ± 155	$4.24^{+2.96}_{-2.55}$	776^{+51}_{-39}	5516^{+3627}_{-1169}	1563^{+8453}_{-1056}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

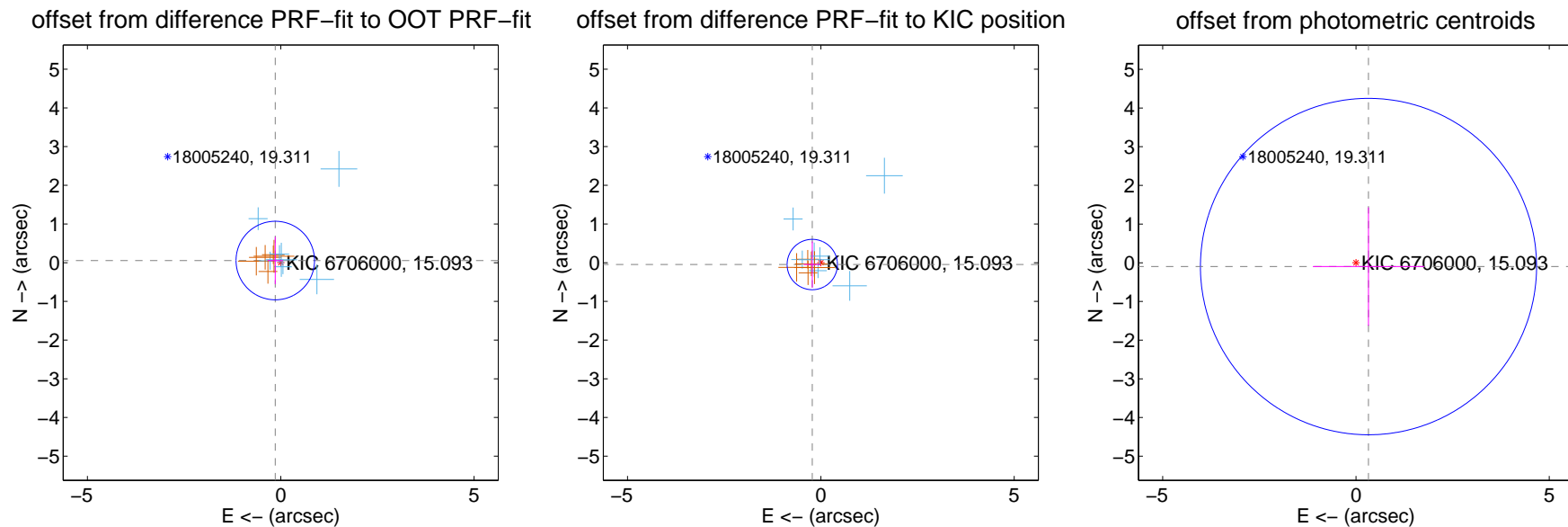
DV Centroid Data

Supplemental centroid analysis for 006706000-02. Kepler magnitude: 15.09. Transit SNR 5.72

There are 7 quarters with good PRF difference image offsets

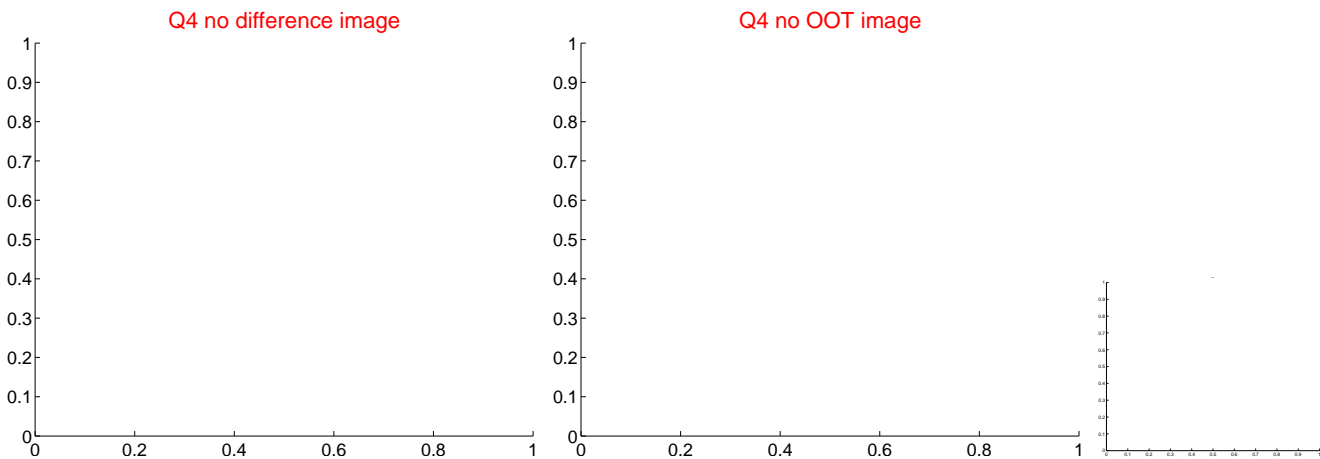
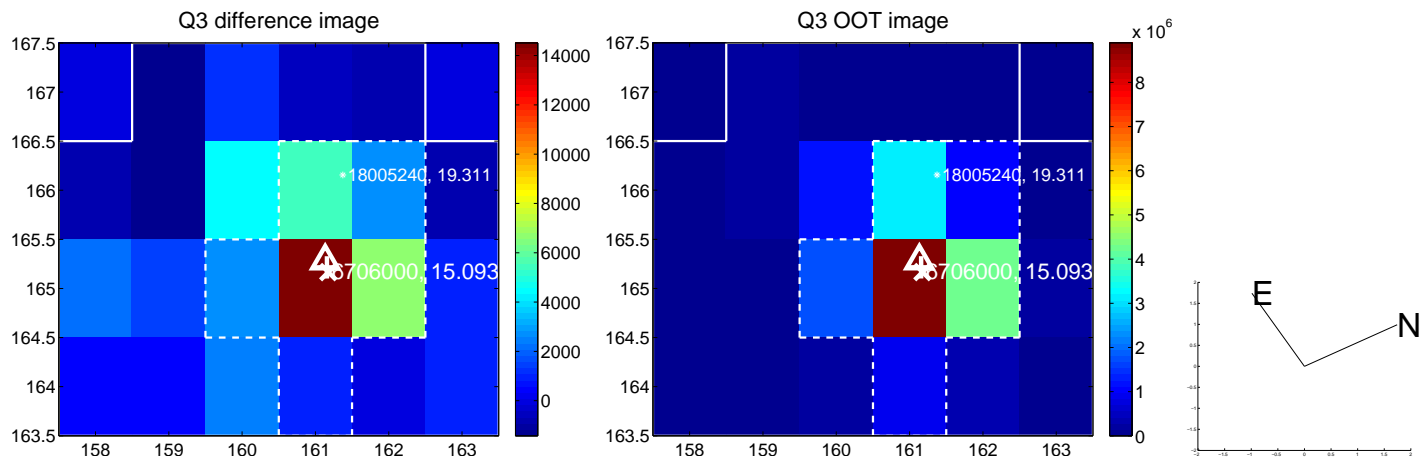
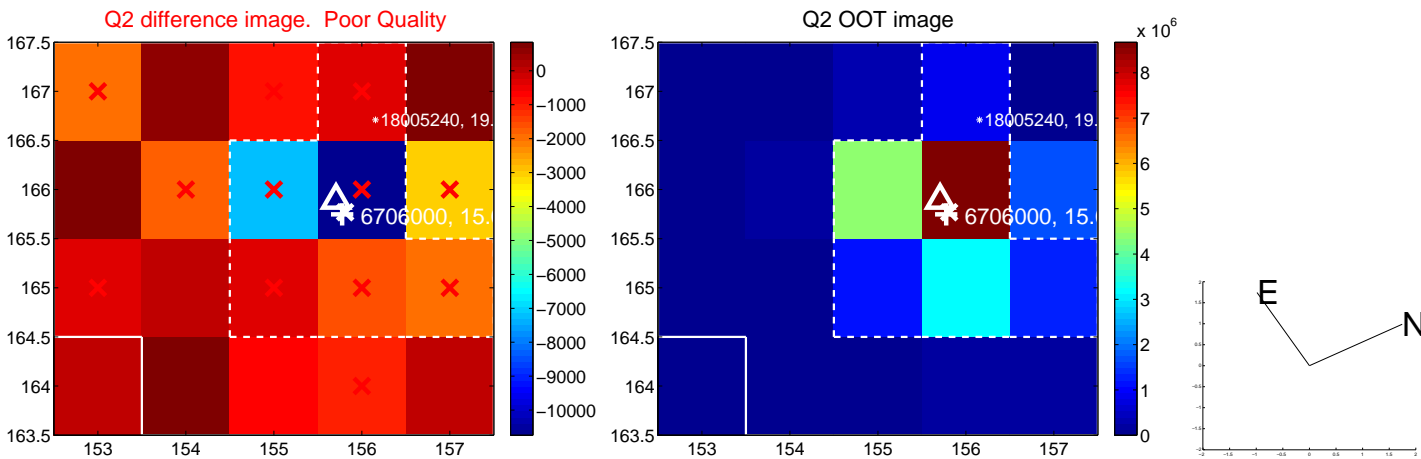
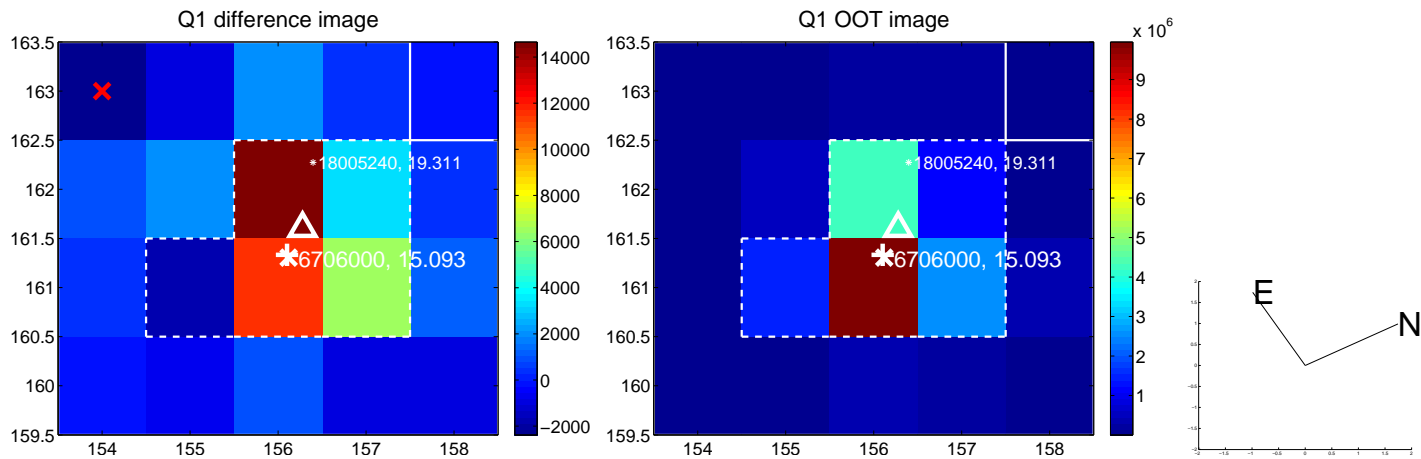
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.152 ± 0.338	0.45	0.141 ± 0.195	0.056 ± 0.610
PRF-fit source offset from KIC position	0.227 ± 0.217	1.05	0.222 ± 0.220	-0.047 ± 0.598
photometric centroid source offset	0.34 ± 1.45	0.23	-0.32 ± 1.44	-0.10 ± 1.53

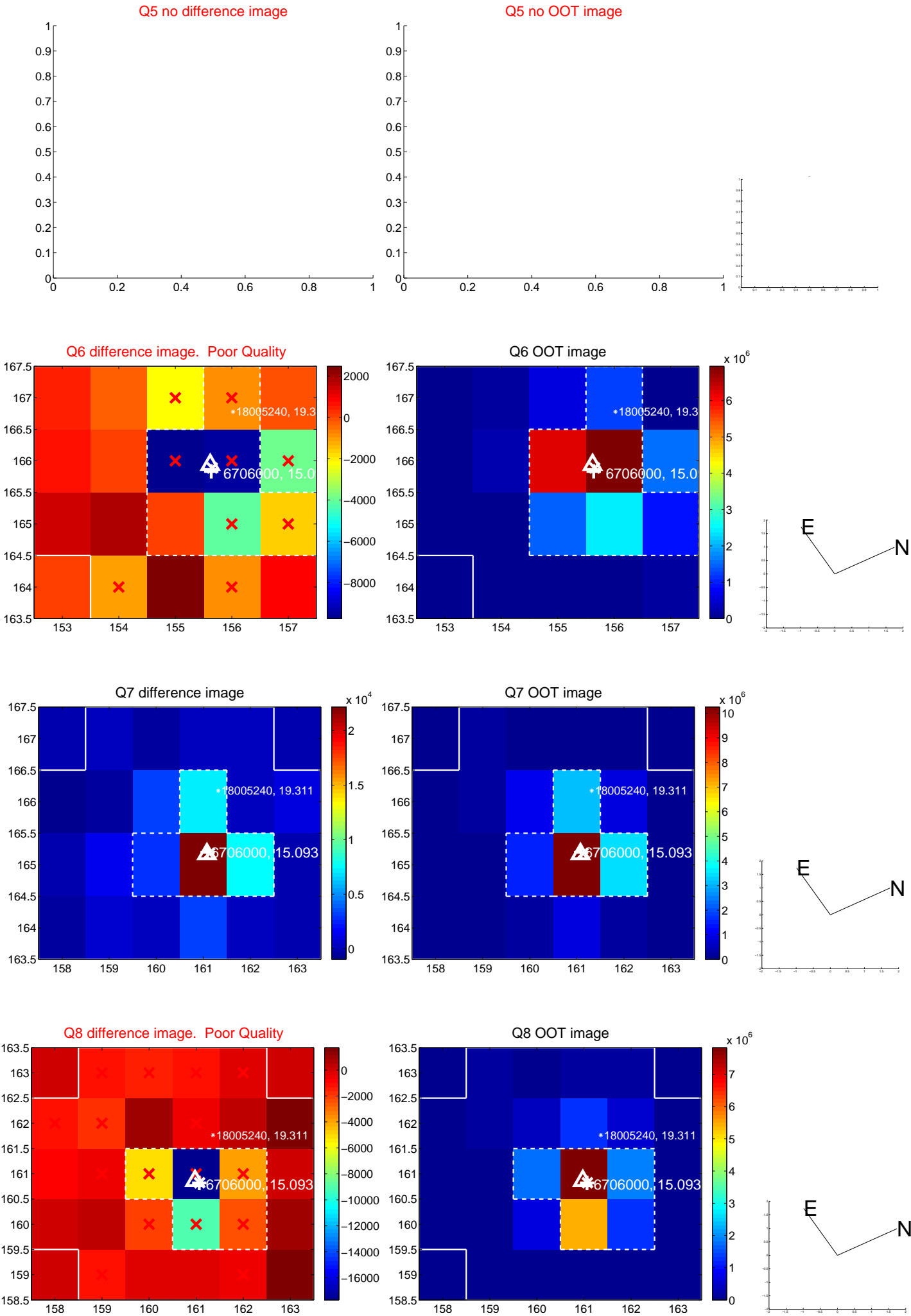


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

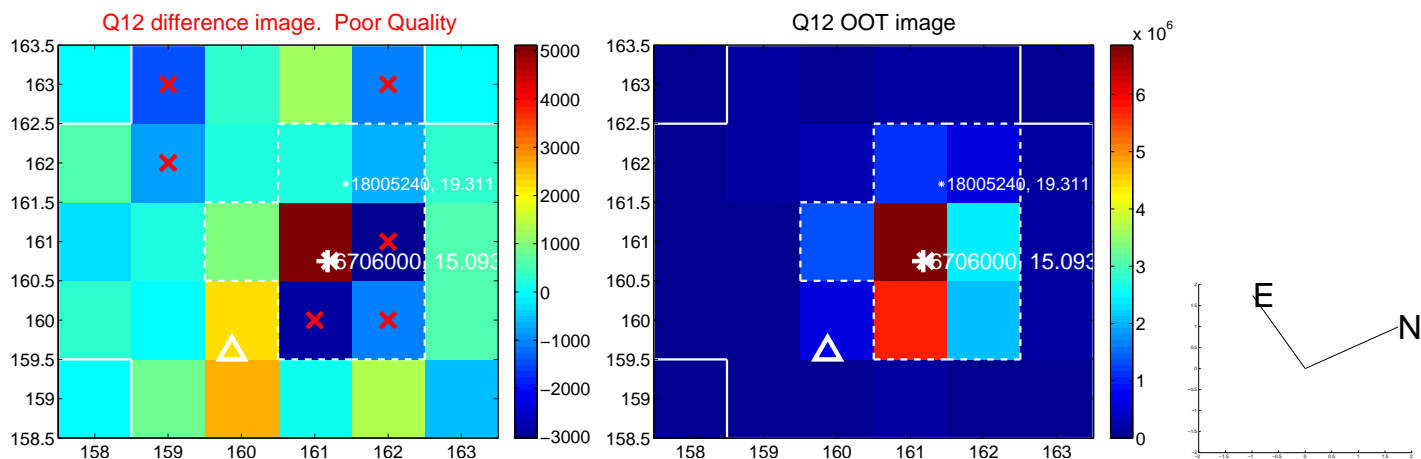
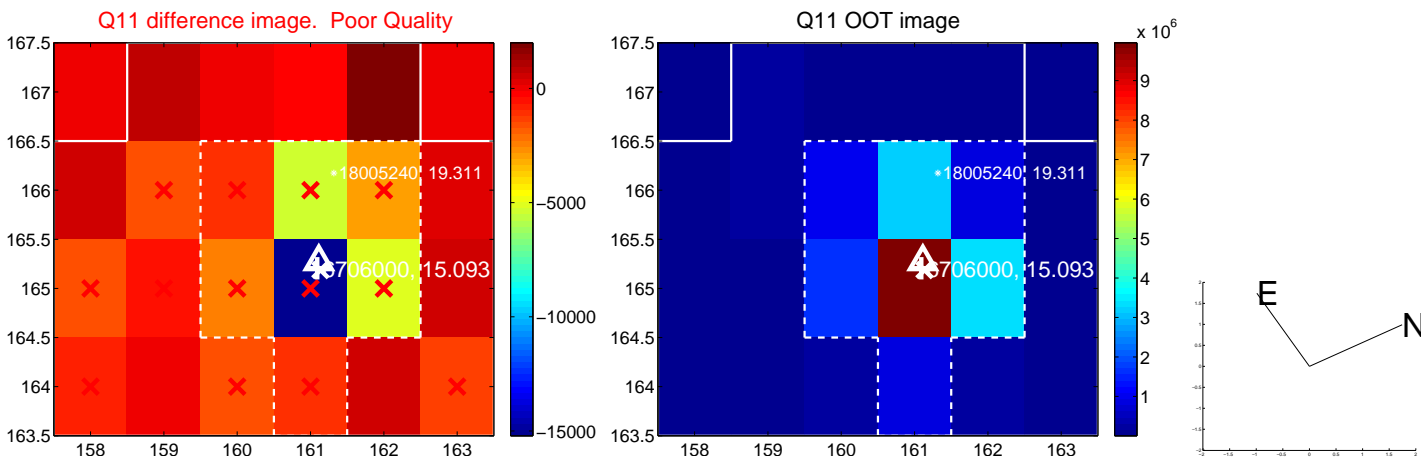
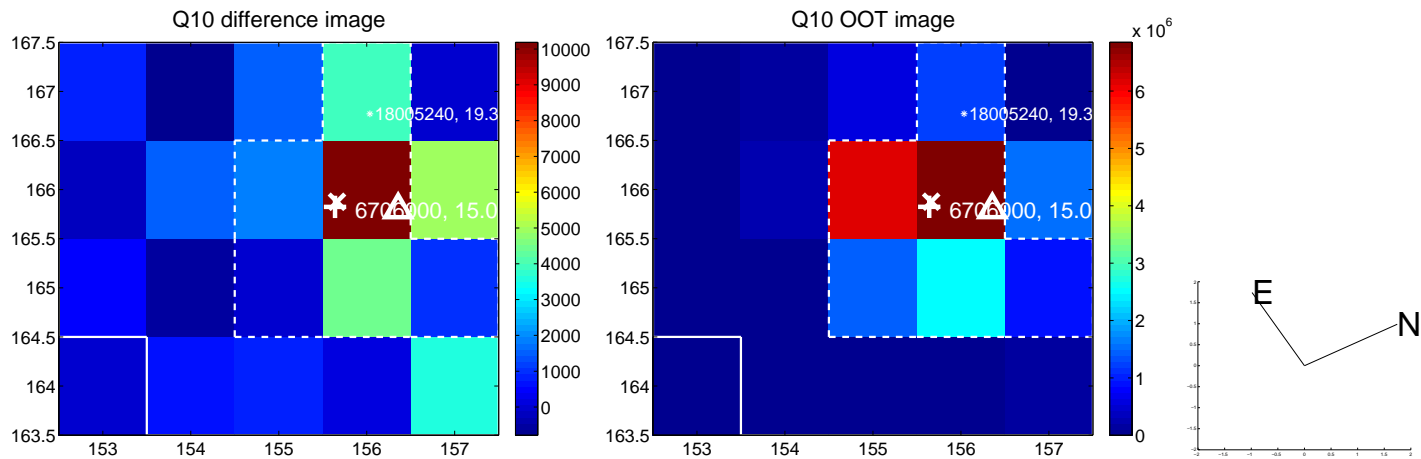
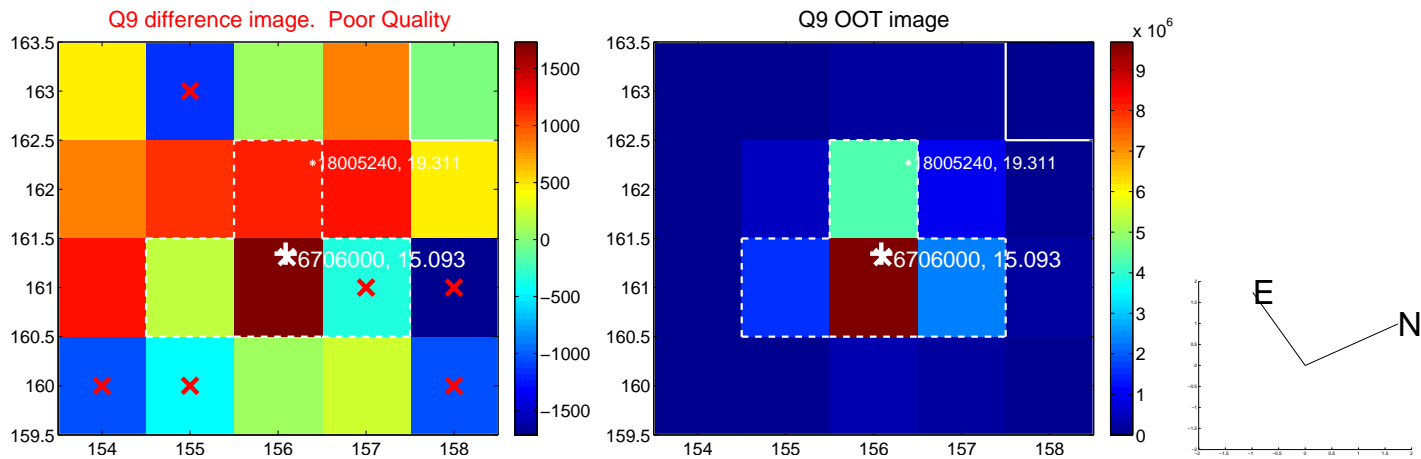
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



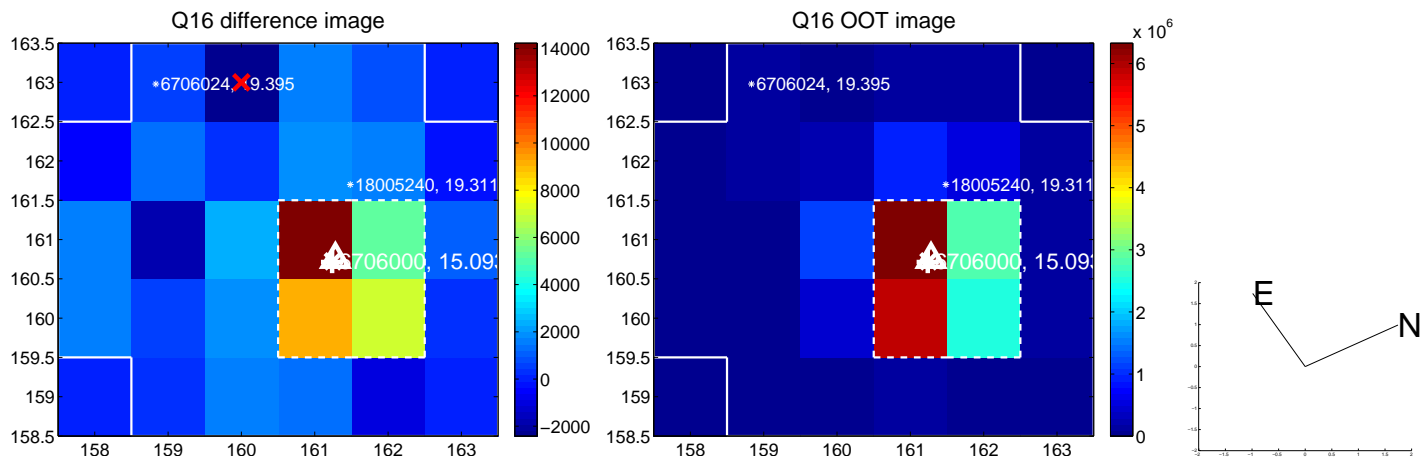
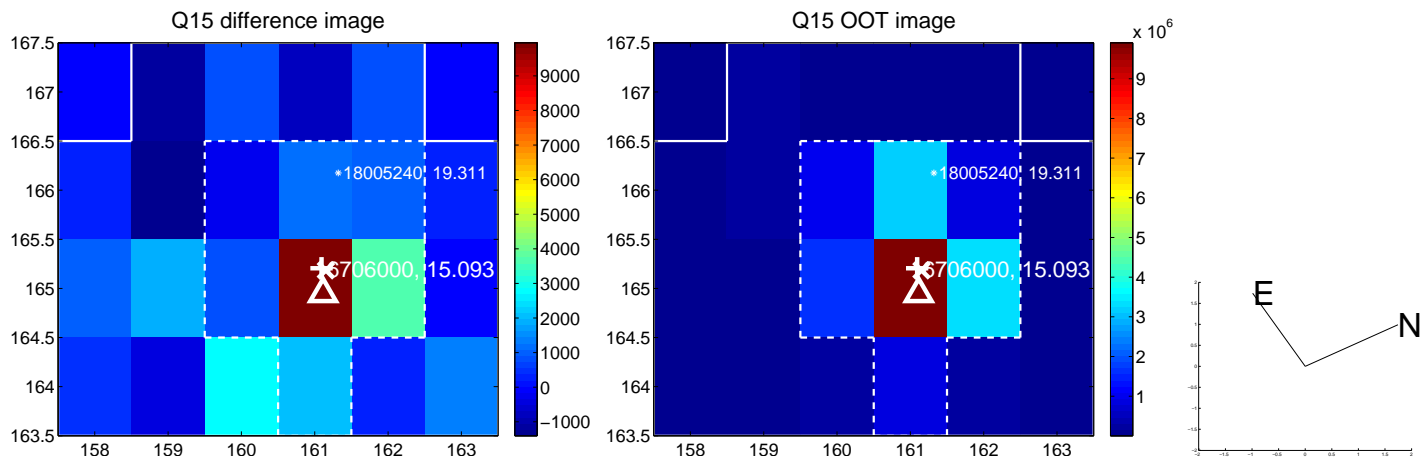
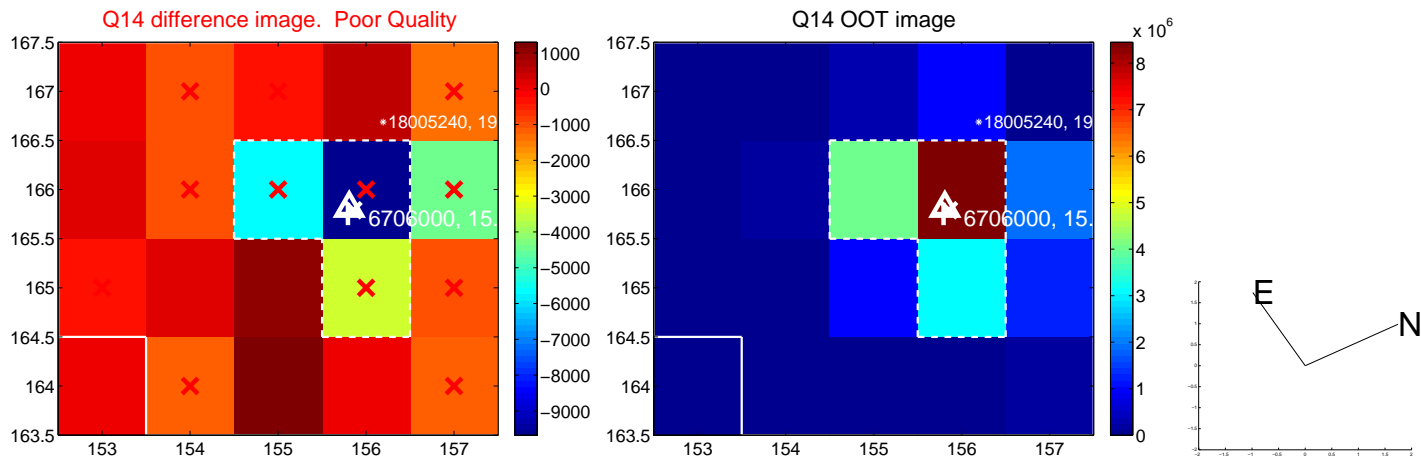
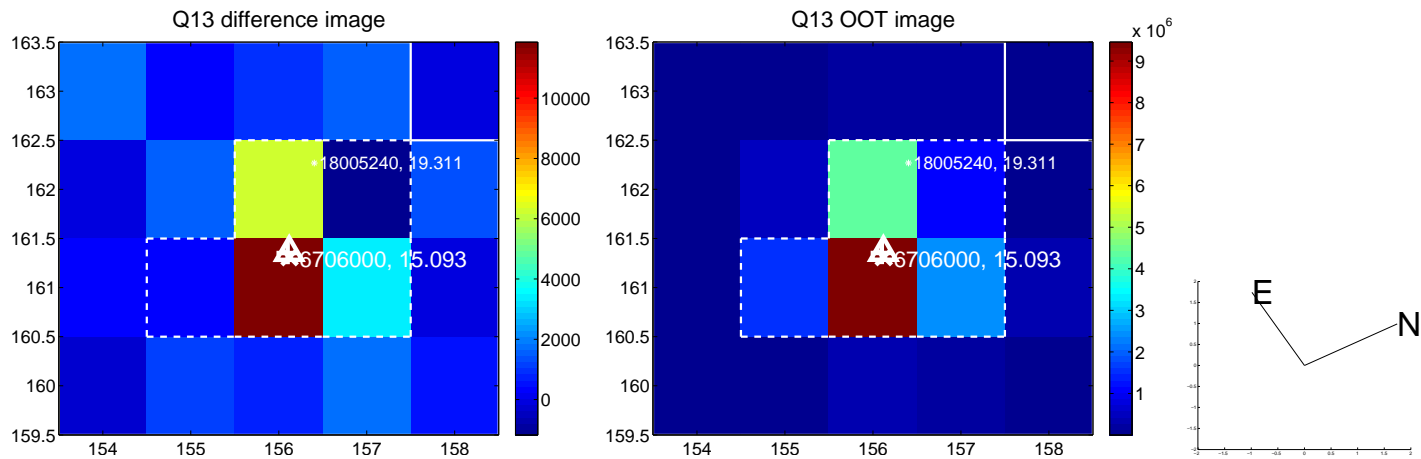
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



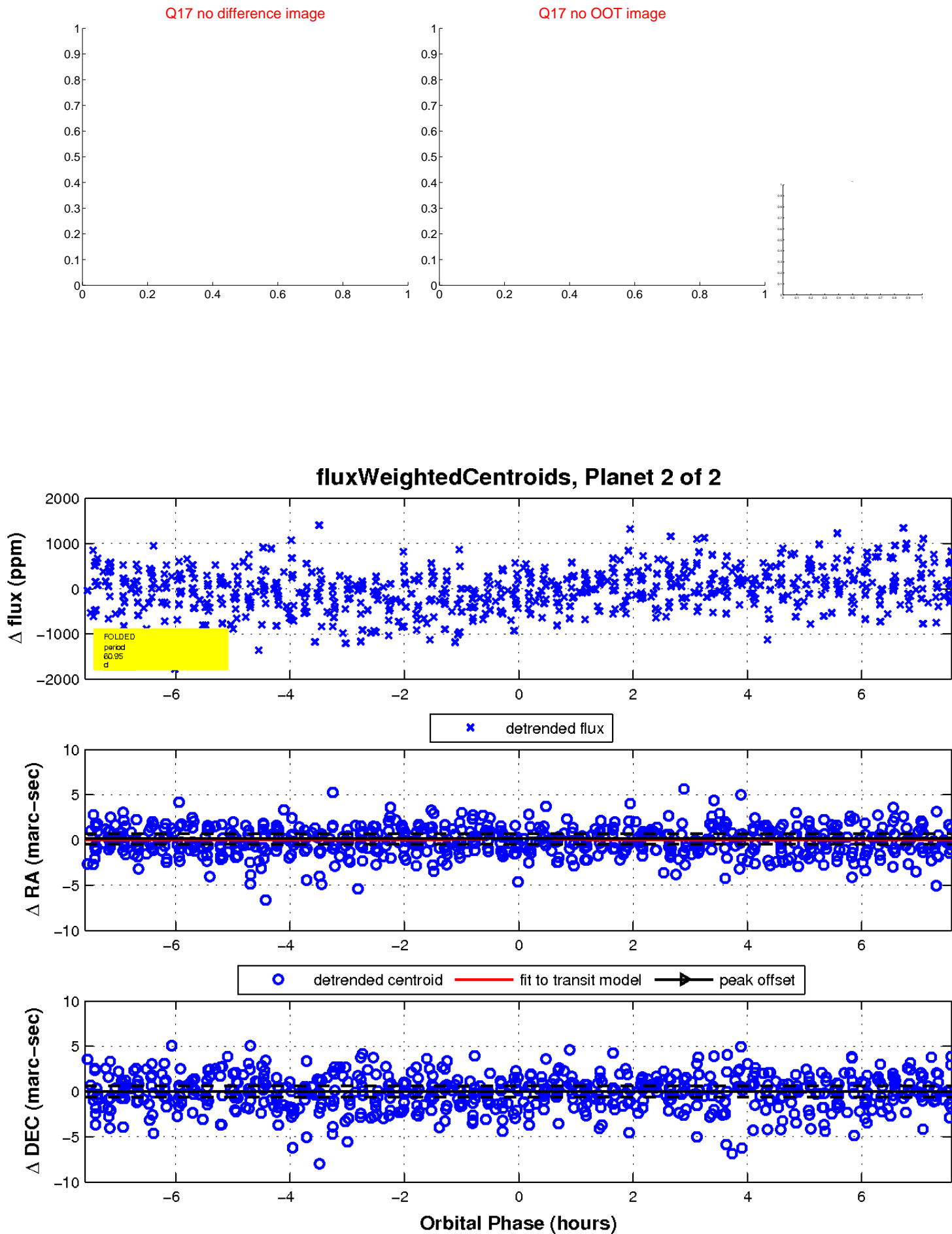
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

